Intelligence Bulletin

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MILITARY INTELLIGENCE DIVISION • WAR DEPARTMENT • WASHINGTON D. C.

Have You Learned A Lesson About The Enemy?

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INTELLIGENCE BULLETIN

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Cover Illustration— German bazooka teams in action against U.S. tanks (story on page 10).

German Fortress Battalions now take part in the defense of fortified lines.

These newly created German units are charged with the defense of such strongly fortified lines as the West Wall.

Fortress Battalions
. . . and how they are used

A large number of German "Fortress Battalions", intended to man the West Wall, were formed during the crucial period following the enemy's collapse in France, and may be expected to take an important part in the defense of that fortified line. A Fortress Battalion may be one of three basic types: the Fortress Infantry Battalion, the Fortress Machine-gun Battalion, and the Super-heavy (Independent) Machine-gun Battalion. In the late summer of 1944, General Heins Guderian issued an order giving details regarding the various types and discussing their tactical use. The following notes are based on the most important parts of his order.

THEIR PURPOSE AND MISSIONS

German Fortress Battalions are Army GHQ troops, and are controlled by the Army High Command. As a rule, they are meant to be used only in the defense of fortified lines and other fortified positions. By assignment these Battalions operate under local commanders.

If the field troops retire to new positions, the Fortress Battalions are withdrawn to the nearest permanent fortifications.

In contrast with the standard 1944 battalion organization in the German infantry division, Fortress Battalions have less per-

sonnel but—as the enemy sees it—greater combat effectiveness, because of a more liberal allotment of automatic weapons and mortars, and especially because antitank rocket-projector platoons are attached.

A thorough knowledge of the terrain, (especially a knowledge of the possible avenues of approach and the areas in which hostile forces are concentrated) and a carefully prepared defense plan are regarded as prerequisites for the correct emplacement of the automatic weapons and mortars, and as an indispensable basis for the tactical employment of the Battalions.

If time permits, defensive measures are tested, and defensive action is rehearsed, on the basis of theoretical Allied attacks. This, of course, is a customary practic efor all units throughout the German Armed Forces.

The Germans may employ these battalions not only in a fortified line and in the outer defenses of forts, but in prepared rear defensive positions, entirely independent of the fortified line. The Battalions also may be committed as a screening force in threatened sectors or in sectors which may be tactically important for other reasons.

The enemy believes that Fortress Battalions preferably should be given missions such as these:

1. To defend against weaker hostile forces which have broken through unexpectedly.

2. To delay the opposition's advance by forcing its advance guards to fight before they reach the actual fortified line or position, and by blocking defiles and other tactically useful corridors.

3. To allow fighting troops falling back toward the main defensive position to be absorbed into that position.

4. To occupy quickly and to defend points or sectors of special importance.

5. To counterattack with the limited objective of cleaning up hostile penetrations into a prepared line or position.

The purpose of such missions is to prevent an Allied force from capturing key defensive points without a battle, and to gain time and space for subsequent operations by German forces.

The tactical principles that Fortress Battalions will observe are the same as the standard German principles of defense, and are not affected by the location and specific combat mission of any individual Battalion.

Normally, the Battalions will be assigned to existing fortified lines or positions, or to those under construction. To increase the effectiveness of their assigned sectors of defense, Battalions will make use of natural obstacles and will construct additional blocks. The units are told that they can greatly increase the defense potential of their positions by the skillful employment of all available automatic weapons and mortars; interlocking bands of fire, organization in depth, and flanking fire are stressed. However, only the local commander is allowed to alter the defense lines or to authorize changes in a fortification plan.

THE THREE BASIC TYPES

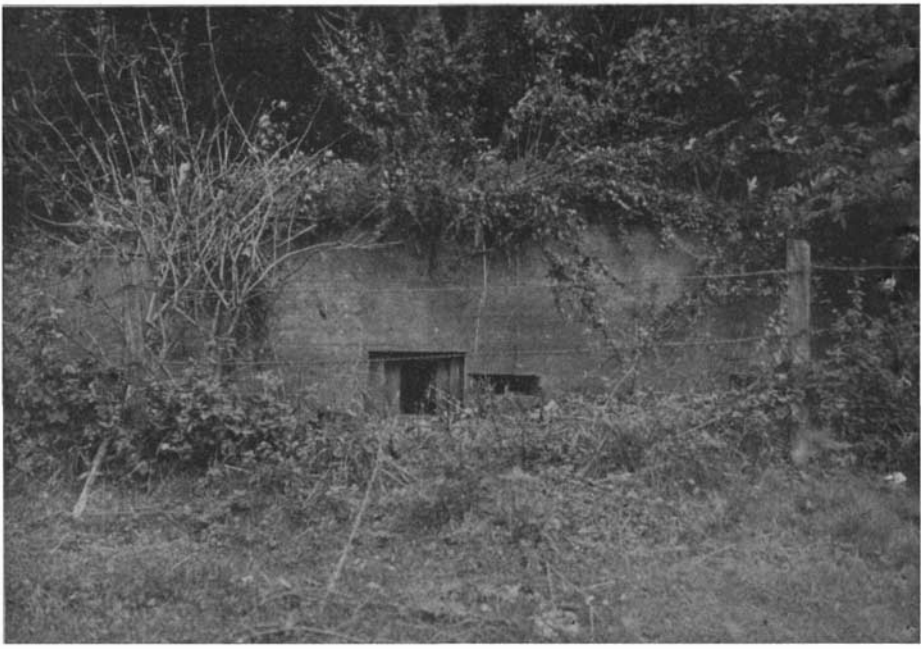
Differences in armament, strength, and mobility determine different special uses for the three basic types of Fortress Battalions. Here are General Guderian's comments about the various types and the ways in which they should be committed.

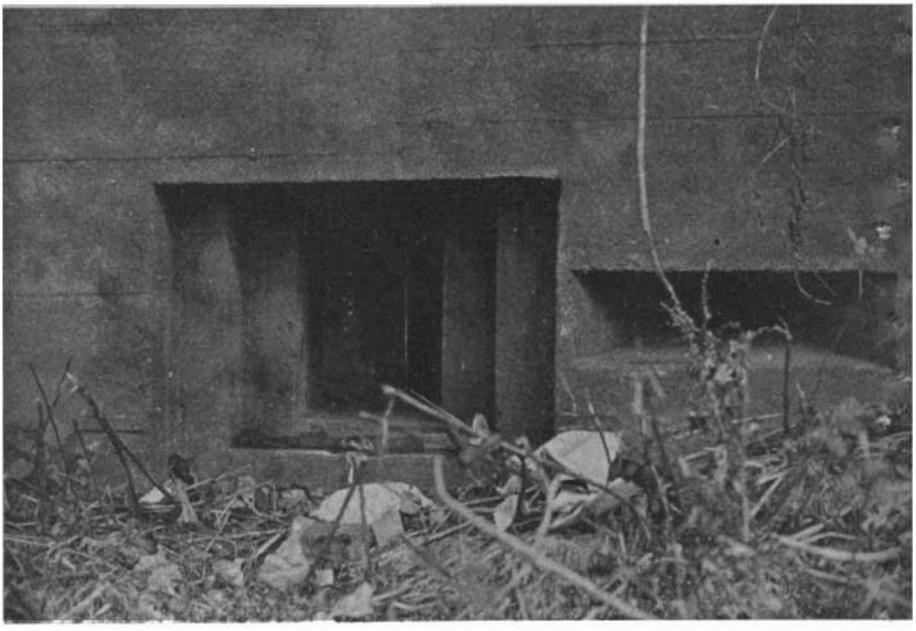
Fortress Infantry Battalions

1. Bicycle Company

Infantry companies equipped with bicycles are especially suitable for reconnaissance and mobile warfare. The following missions are recommended:

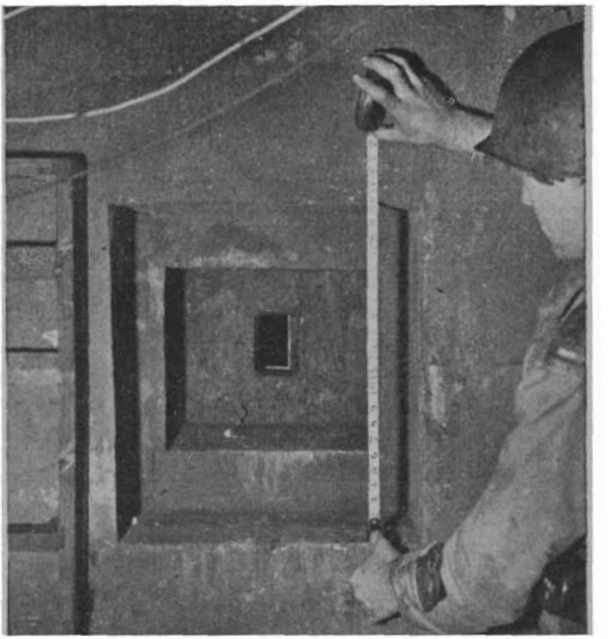
a. Long-range reconnaissance. For combat reconnaissance, all companies must furnish patrols because of the small number of mobile forces.





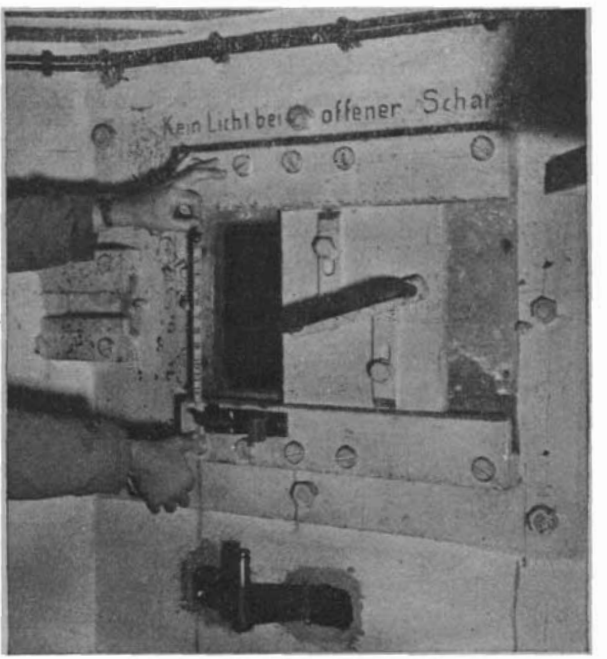
A well-concealed German pillbox showing center embrasure with vision slit at right. This pillbox for light machine guns was captured during the assault on the Siegfried Line. Other vision slits are on other sides of the pillbox, affording a wide field of observation.

View of an embrasure in the rear of a German pillbox used to protect the rear entrance from assault. The steel plate with slot is embedded in the center of the concrete wall.



Closeup of center machine-gun embrasure, measuring 8 by 12 inches, showing closure plate partly closed. The vision slit at the right is probably for observation of gunfire and hostile troops without interfering with the machine gunner.

Interior of German pillbox showing details of embrasure closure plate. The plate is locked by the eccentric wedges. Pinion for mounting the machine gun, apparently added after the pillbox was completed, is below the embrasure. The lettering means "No lights when slit is open."



b. The swift occupation of important terrain features.

c. The protection of front, flank, or rear when no other German unit is available for this.

d. Employment as a mobile reserve, at the disposal of the Fortress Battalion commander. Weapons, ammunition, and necessary pieces of equipment are to be fastened onto the bicycles.

2. Rifle Company

The heavy machine gun squad in each rifle company is particularly well adapted for defensive fighting in depth from concealed, flanking firing positions. Covered positions may be employed.

If the assault platoon is equipped with the submachine gun 44 *(Machinenpistole 44)*, the fire power of the company is greatly increased. This platoon should be employed for counterthrusts, in case of hostile penetrations, and at local defense points where the terrain does not permit effective use of of such long-range weapons as the heavy machine gun and the 81-mm mortar.

Up to a range of 450 yards, the *M.P. 44* is as accurate as the rifle. The principal value of the *M.P. 44* lies in its accuracy and high rate of fire (22 to 28 rounds per minute) as a semiautomatic weapon, and in its alternate use as an automatic weapon, when it is fired in short bursts of 2 to 3 rounds (40 to 50 rounds per minute). Generally, the weapon is set for single fire. Bursts will be fired only when beating off an enemy assault, making a counterthrust (against a penetration, in close combat), or at very short ranges during combat in trenches, towns, or woods. Strict fire discipline must be observed. Conserve ammunition! Remember that this weapon fires a short cartridge, not interchangeable with ordinary rifle or machine-gun ammunition.

In addition to being equipped with antitank hollow charges, the antitank rocket-projector platoon enables the rifle company to build up a powerful and deeply echeloned antitank defense in, or immediately behind, the main line of resistance.

3. Heavy Company

By means of fire from its heavy machine-gun platoon (4 or 6 guns), the heavy company supplements the heavy machine-gun fire of the rifle company. Whenever possible, the platoon fires from covered positions.

The mortar platoons support the action of the rifle companies by commitment as a unit and with concentrated fire. The mortar-platoon

observation posts are to be situated so that they can maintain communication with the company commander in whose sector they are committed. The firing positions should be close enough to permit continued observed fire, even if technical means of communication are destroyed. This can be achieved by situating observation posts close to the firing positions.

Fortress Machine-gun Battalion

The usual German tactical rules for the defense apply, with certain natural modifications, to the Fortress Machine-gun Battalion. The latter is committed in the first line of defense and in terrain where the best use can be made of the shock power of the heavy machine gun.

The machine-gun company is committed by squads or platoons. The heavy machine guns usually will take advantage of every opportunity to fire from the flanks. Concentrated fire is placed on terrain features which are especially threatened.

Antitank rocket-projector platoons are committed by squads or teams, for the protection of firing positions.

The heavy company receives a liberal allotment of 81-mm mortars and 75-mm infantry howitzers, to permit heavy concentrations of fire.

The engineer platoon is committed in the usual manner.

Super-heavy (Independent) Fortress Machine-gun Battalion

The companies equipped with single-barrel, 20-mm machine guns are primarily intended to combat ground targets from concealed or covered firing positions. These positions are selected with an eye toward the possible use of the guns against air targets, as well.

The antiaircraft company, equipped with four-barrel, 20-mm guns, is committed principally against air targets, and from concealed positions at important terrain features. However, when the firing positions are selected, the possibility that the guns may also be used against ground targets is taken into account.

NOTES ON TACTICS

The Germans recognize that Fortress Battalions often will be on their own, especially in the early stages of an operation. This is why the enemy believes in conducting tactical and terrain reconnaissance frequently, for a considerable distance, and in ample time to permit planning. Moreover, early liaison is

established with approaching reinforcements and with German troops falling back to the fortified positions. Ruses and deceptions are used.

Great care is taken to prevent a hostile force from penetrating a fortified line or position unexpectedly or occupying rear positions before German troops can reach them. Therefore, in addition to performing reconnaissance, Fortress Battalions take the necessary measures to guard the fortified positions and to keep them in readiness for defense on very short notice. In this connection, no time is lost in constructing additional positions, with emphasis on sectors considered suitable for a hostile approach; frequent alerts and drills are ordered, to reduce the time needed to man the installations; and mobile elements are dispatched forward.

The Germans believe that counterthrusts and other fighting outside the fortifications can be conducted successfully only by mobile elements. Such elements are selected at the earliest possible time (they may be drawn from the mobile forces of the Battalion), and are equipped with the necessary weapons and supplies.

Because of the independent nature of a Fortress Battalion, the headquarters company takes care of the supply of all companies in the Battalion. Thus the company commanders become free to devote their entire time to leading their units in training and in combat, and are not obliged to concern themselves with supply problems beyond maintaining a general supervision. (This type of organization is called "*freie Gliederung*," or "freeing organization," since it frees the company commander for combat duties only. It represents a trend which is becoming noticeable in the organization of all German armored units and some Volksgrenadier units.) According to General Guderian, the principal job of Fortress Battalion company commanders should be to weld the whole organization into a perfectly coor-

dinated fighting unit. However, as with all German units, it is required that an "adequate" amount of time be set aside for National Socialist education and indoctrination. Even Fortress Battalions, charged with conducting a desperate defense within the borders of Germany itself, are not permitted to forget that Nazi domination of the world still is the ultimate goal.

A German two-man bozooka team firing on U. S. tanks.

MORE NOTES ON ANTITANK TACTICS

With German antitank activity coming increasingly into the spotlight, these new notes on enemy antitank tactics have a special significance. Moreover, it must be expected that such measures will become even more vigorous as the threat to the German homeland grows.

U. S. combat experiences in Italy and the interrogation of German officers have yielded fresh information about German antitank tactics, which today are playing a more important part than ever in the enemy's stubborn defensive fighting. The following tactical notes deal with the antitank company, the bazooka and grenade-discharger squads, and ground-mount antitank guns, tanks, and self-propelled artillery in the withdrawal. In addition, a new German technique of preparing delaying positions is discussed and illustrated. The latter information comes from a U. S. armored division now fighting in Germany.

THE ANTITANK COMPANY

Companies of the German division antitank battalion, as well as the regimental 14th Company, are employed in support of the infantry regiments, but their orders for deployment normally come from the antitank battalion headquarters, rather than from the regiment. The Germans believe that this procedure ensures a higher degree of coordination in the antitank defense throughout the division sector. However, the following tactical principles are followed by companies of both types.

The guns are brought into an assembly area, and the company and platoon commanders go forward to make a detailed reconnaissance of firing positions. If the company commander has had enough time, he will have made a preliminary survey of the entire sector, and will have prepared a map designating areas as *Panzersicher* (tank-proof), *Panzergefährdet* (difficult for tanks), or *Panzermöglich* (good tank terrain). The over-all allotment of antitank guns will have been made on the basis of this map, with the object of covering those areas designated as *Panzermöglich.* Great care is taken with the siting of each gun; whenever possible, this is done by the platoon commander.

The caliber of the guns determines the nature of the positions which are chosen. The Germans stipulate that the 50-mm antitank gun must be sited in defilade and must fire to the flanks. This is why the Germans choose such positions as the reverse slopes of hills and the reverse edges of small woods. Houses are avoided, on the principle that they attract too much artillery fire. The Germans also prefer flanking fire for their 75-mm antitank guns, but the U. S. and British practice of advancing with infantry in the lead and tanks following in support makes this difficult to achieve. And since the Germans believe that these 75's can pierce the front armor of Allied tanks at ranges up to 2,000 yards, the guns usually are sited to fire forward, and are well camouflaged instead of being defiladed. Guns of

all calibers are sited in depth, at varying distances behind the main line of resistance, depending on the situation and the terrain. Invariably, the guns have infantry in front of them for local protection. The positions are arranged so that the guns can support each other, each gun covering positions from which other guns might be attacked by Allied tanks in hull-down positions.

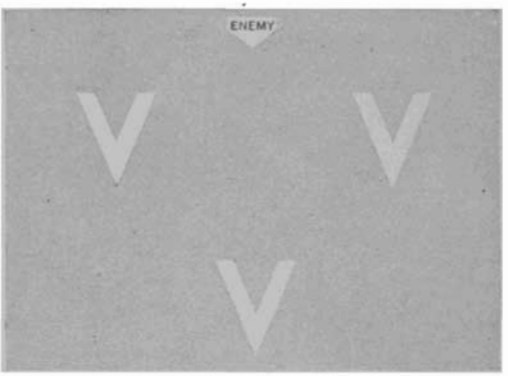
The enemy's normal practice has been to withdraw the company's prime movers to lines about half a mile to a mile behind the gun positions, but, because of Allied heavy artillery superiority, this is no longer possible. The more usual procedure now is to send back all but one prime mover out of range of artillery fire. The remainding prime mover serves for any local changes of position which prove necessary. Since such changes of position are likely to be fairly frequent, it is standard enemy practice to prepare alternate positions for the guns as soon as the original positions have been prepared. Of course, a company with only one prime mover forward is not able to undertake a sudden withdrawal. (If the probable necessity for a withdrawal is foreseen, the prime movers are kept near the guns, and are disposed in whatever cover can be found.)

If the company makes a planned withdrawal, assembly areas as well as new lines of resistance are reconnoitered to the rear of the initial positions. The guns then withdraw singly, under cover of the remaining weapons.

BAZOOKA AND GRENADE-DISCHARGER SQUADS

Bazooka and grenade-discharger squads are allotted to those infantry companies whose sectors are considered most likely to be attacked by tanks. The bazooka is regarded as a relatively static weapon, to be fired from a prepared position, whereas the grenade discharger is regarded as a mobile reserve weapon, and usually is held back at the Antitank Company command post.

Wherever possible, bazookas are used in groups of three, and are sited in a V with its prongs toward the opposition.



This permits at least two weapons to engage a tank approaching from any direction. The individual rocket launcher is emplaced in a V-shaped pit, with the prongs pointing toward the opposition. The weapon is carried to either end of the V, according to the direction from which the tank to be engaged is approaching. Having loaded the weapon, the loader takes shelter in the opposite arm of the V, to avoid the back-flash of the rocket. He usually is armed with a submachine gun, and is responsible for the ground protection of the position. In the general defense plan of the company, bazooka sections have the mission of defending narrow tank lanes and defiladed approaches. The antitank guns cover the open areas of attack.

A "FIRE TEAM" IN THE WITHDRAWAL

Ground-mount antitank guns, tanks, and self-propelled artillery frequently constitute a "fire team" in German withdrawal actions. The ground-mount antitank guns are sited singly, in groups of two or three, in positions permitting all-around defense. Wire entanglements and minefields surround these positions, and infantry in company or platoon strength is maintained in the immediate vicinity. The infantry stays close to the road,

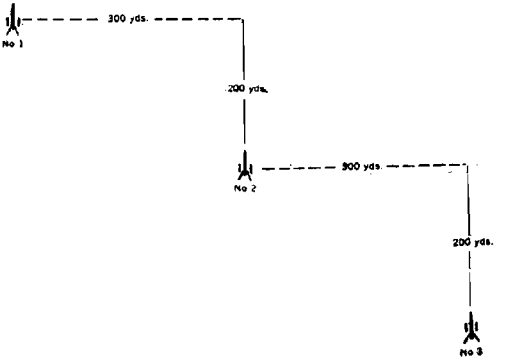
and their positions are planned for ready withdrawal. For this reason the infantry engage mostly with frontal fire, and fire only a few rounds before pulling back. Small groups of tanks deploy on the flanks of their position, serving both as protection for the antitank guns and as an incentive to hostile armor to deploy similarly. In retreat, these tanks engage the hostile armor and afford time for the ground-mount weapons to retire to their next position.

The mission of the self-propelled guns in an action of this kind is to remain in the rear, between the antitank guns in the center and the armor on the flanks. The self-propelled guns provide fire support, changing position continually and avoiding a direct engagement with the hostile armor. The Germans consider them especially valuable in helping antitank guns to defend a road block. By changing their positions so often, the self-propelled guns place interdictory fire of heavy caliber on the obstacle area without endangering themselves to any appreciable extent.

FAILURE OF A TACTIC

A prisoner declared that the antitank company never was used in support of advancing tanks; its chief mission was to attack Allied tanks and cover the German retreat.

The three guns of a platoon were staggered in the following manner:



In theory, the No. 1 gun was to start firing so as to attract return fire from the hostile tanks. As soon as it was feasible to do so, the No. 1 gun was to change position to the rear. In the meantime, the No. 2 gun was to fire in order to attract the opposition's attention. As soon as the Allied tanks' fire was directed toward the No. 2 gun, that gun was supposed to cease firing and move to the rear, leaving the No. 3 gun to take over until the No. 1 gun was in position and ready to start firing again.

In actual practice, however, this system seldom worked. Fire on advancing tanks was opened at 400 yards; the prisoner considered this range much too short to permit a successful change of position as outlined in the theory. Since the prisoner was captured by advancing Allied infantry because he had been unable to move his gun to the rear quickly enough, his contention seems pretty reasonable.

No spare barrels were carried by the enemy, and only the gun sight was used. The prisoner's platoon once had a range finder calibrated up to 10,000 meters, but the prisoner had never seen it in action. Fire control was independent for each gun, and was handled by the noncom in charge, who relied on field glasses.

In the prisoner's opinion, the following ranges for the 75-mm antitank guns were the most effective:

Against tanks or other moving targets	400 yards
Against attacking infantry	1,000 yards
Against strongpoints	1,200 yards
Against houses	1,500 yards

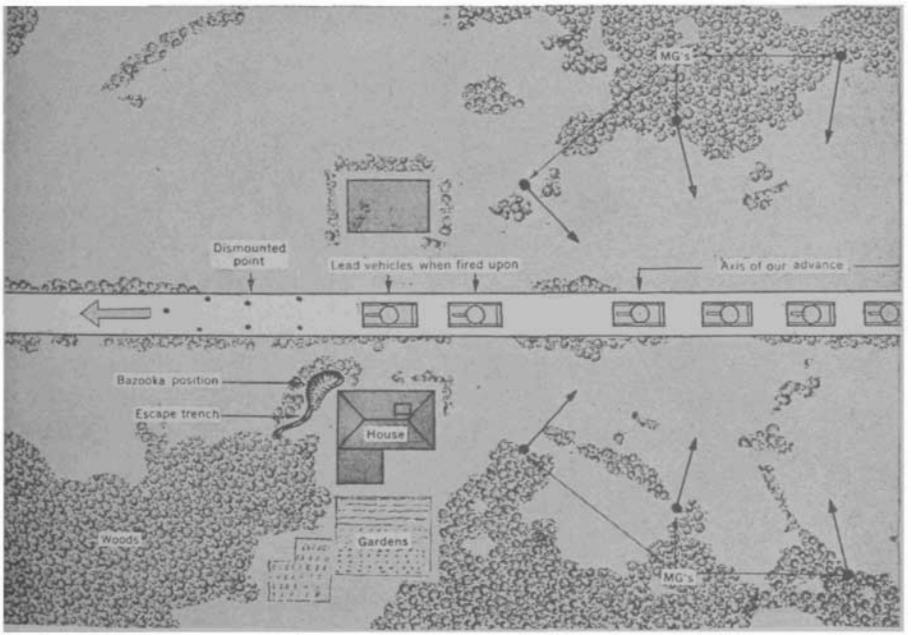
A DELAYING POSITION

In recent weeks a U. S. armored division has been encountering German delaying positions designed to destroy the leading tanks of an armored column and to cause confusion and delay. One type of set-up in particular has been encountered re-

peatedly, and evidence shows that the Germans have been practicing and perfecting the technique very studiously indeed.

As shown in the illustration, a covered and perfectly camouflaged foxhole for a two-man bazooka team normally is dug in a semicircular pattern around the corner of a house or other building anywhere from 5 to 50 yards off a road. A camouflaged escape trench leads from the rear of the bazooka emplacement to any nearby place of concealment, such as garden shrubbery, outbuildings, or woods. Machine guns are placed in a V, with the prongs of the V about 300 to 400 yards away from the road and facing the direction from which an Allied approach is expected.

When an advancing Allied column is preceded by a dismounted point, fire is withheld until the bazooka team can be certain of knocking out the leading vehicles.



A representative German delaying position.

When the bazooka fires, all the machine guns open up on the remainder of the column, not so much to cause casualties as to create confusion and to make it difficult for the Allied force to tell the spot from which the bazooka fire has come. In fact, the Germans rely on a combination of factors—the excellent camouflage of the positions and the escape trench, besides the confusion created by the cross-firing machine guns—to make it difficult for Allied soldiers to determine the points from which the resistance originates.

Discovered in Combat

Military gains may be measured, not only in terms of areas liberated or conquered, but also in terms of the knowledge we acquire about our opponent. From U. S. unit commanders and staff officers who have been engaged in recent fighting in Western Europe comes currently valuable information regarding the German enemy. Further intelligence notes of this type will appear in subsequent issues of the *Intelligence Bulletin*.

REACTION TO ARTILLERY FIRE AGAINST TOWNS

"When U. S. heavy artillery destroyed buildings—even fortified buildings—in Brest, without making sure that the direct-support artillery could maintain neutralization until the infantry assaulted the area, the Germans made the most of their op-

portunity when our fire was lifted. They promptly moved back in, and constructed fortifications from the rubble. When the Germans did this, their new positions often were harder to reduce than the original buildings would have been."

"German troops in Brest who were provided with adequate cover seem to have been affected only slightly by intermittent harassing fire, even when the fire was from heavy artillery. As soon as the men became convinced that their cover afforded reasonable protection, occasional rounds failed to disturb their normal routine."

COMBAT IN TOWNS

"At no time while our outfit was engaged in mopping-up operations in Aachen did the enemy fire a shot from behind our lines. As we went along, we searched every room and closet in every building, and blew every sewer which might have afforded the enemy a hiding place. Not only were our fighting men relieved of the fear of being sniped at from the rear, but command and supply personnel functioned more efficiently."

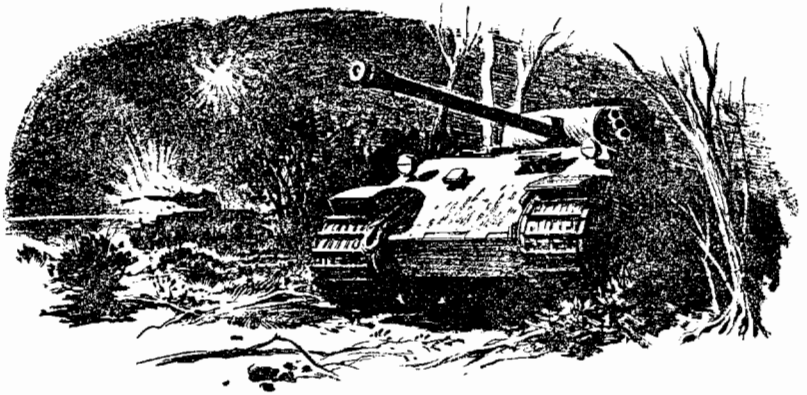
"In Aachen the enemy covered all avenues of approach with antitank guns and used his tanks and self-propelled guns as roving weapons in a series of positions which changed continually. The Germans tried to use their 120-mm mortars at a range of 400 yards, because they felt that in this way they gained effectiveness and made it harder for us to locate the weapons."

"As the fighting in Brest progressed, small groups of German soldiers often were led to surrender because the call for them to lay down their arms came to them in their native language. One sergeant's ability to speak German resulted in many prisoners being taken. In two days 120 enemy soldiers

came out in answer to his call for surrender, and many similar experiences occurred elsewhere."

TANK-INFANTRY NIGHT ATTACK

"On one occasion the Germans launched a tank-infantry attack at night against our positions—and over muddy ground. After taking the objective, the tanks withdrew before daylight, leaving their infantry to hold the ground. A counterattack restored our position.



"In the attack the Germans sprayed the area with fire, and used star shells and flares, in an attempt to frighten our troops. The enemy tanks didn't stick to the roads, but maneuvered across country, racing their engines and milling around to cause confusion among our infantry. Our infantry fired machine guns in the direction from which the sounds of the tanks came, and the sparks from ricochets located the vehicles sufficiently to permit the tank destroyers to fire. Incidentally, a German self-propelled gun was knocked out as a result of this activity."

ENEMY PIGEON SERVICE

"It has been found that German agents have been using carrier pigeons to transmit information to Germany from localities

behind Allied lines. From small lofts the pigeons fly to larger and more centrally situated lofts; the latter transmit the information to Germany by radio. Most of these German pigeons carry on their leg rings the lettering "*Wehrmacht*" or "*Wehrmacht Brieftaube,*" as well as several numbers. Birds that the enemy has commandeered from France, Belgium, and Holland have other markings." (Personnel of at least one U. S. division have been ordered to capture or kill pigeons suspected of being enemy message carriers.)

"THE AMERICANS ARE COMING"

"On previous occasions it has been reported that certain German units have a poor opinion of the 'noise discipline' maintained by U. S. soldiers. Prisoners captured recently have been saying much the same thing—in effect, that U. S. troops advancing to attack German positions have approached the latter so noisily that the important element of surprise has been sacrificed."

CAPTURED ARTILLERY AMMUNITION

"The projectiles of captured German 105-mm ammunition will fit U. S. shell cases and guns, but the case will not. To use the captured ammunition, we have modified some of our shell cases so that they can be used over and over. The case is cut down to the size of the German case, and the primer from the German case is removed and is screwed into the U. S. shell case. It requires about 3 hours to complete this modification."

VULNERABILITY OF PILLBOXES TO "SEALING"

"The amount of TNT needed to blow German pillboxes can be reduced considerably if the escape hatches can be found and plugged beforehand. These hatches, which are encountered in

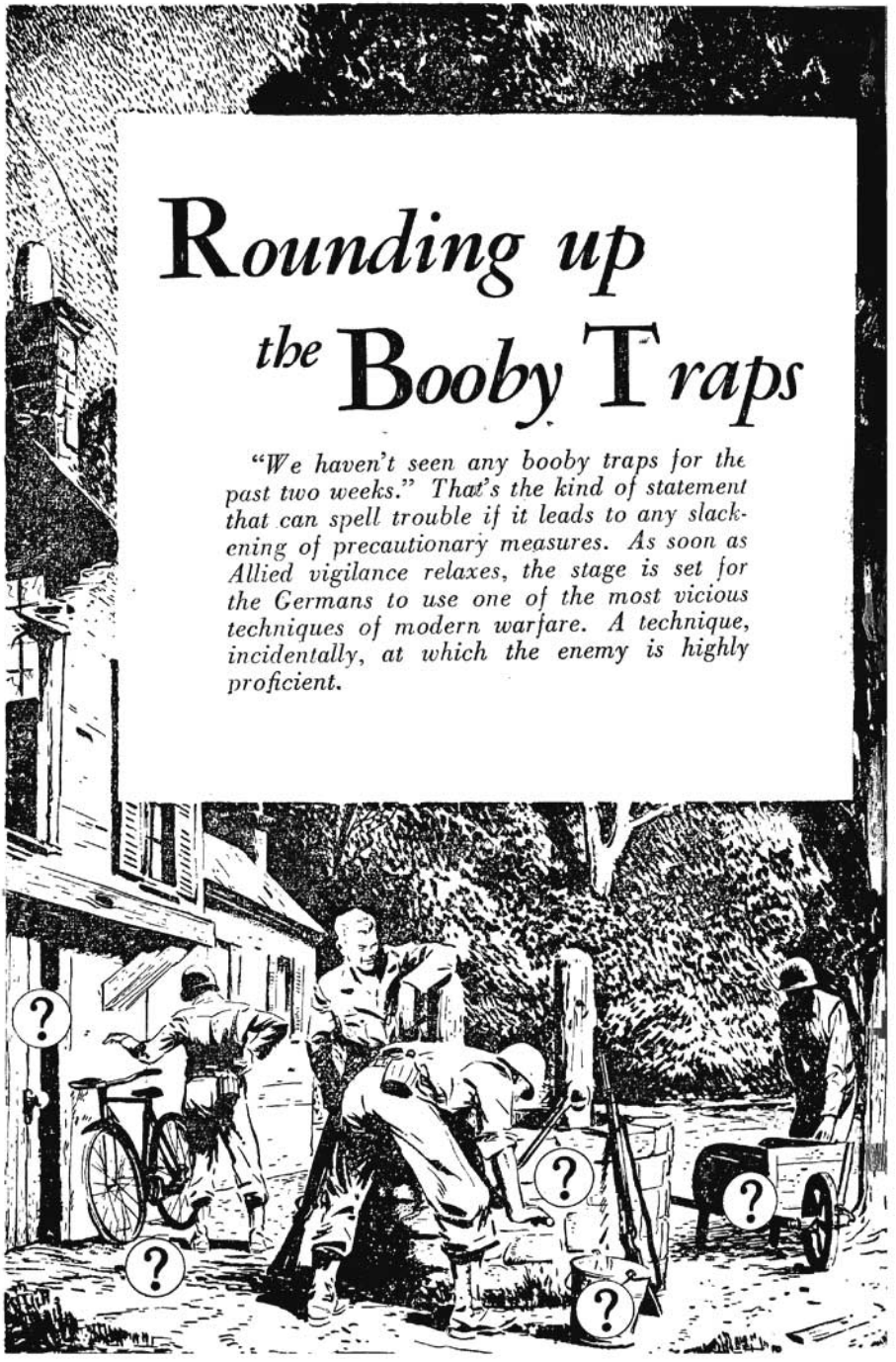
nearly all pillboxes, are about 2 feet square. They are likely to be plastered over and hard to detect.

"Pillboxes have been vulnerable to effective demolition when charges have been placed in the ventilation pipes, which run vertically through the side walls near the pillbox entrance. First the bottoms of the pipes are plugged, then 30 to 50 pounds of TNT are dropped in, primed, and tamped. In one instance, firing the charge breached the wall completely, and the surviving occupants were either wounded or stunned by the flying concrete.

"Embrasure openings have been obstructed by means of thermite grenades. If the sliding door of the embrasure is closed, a grenade is placed on the slideway, is activated, and becomes a molten mass. Although the door itself is not welded, it is jammed by the mass, which hardens and thus obstructs the slideway. A single grenade is sufficient to jam a small door, but two grenades are used against large doors with armor plate more than 2 inches thick. If the grenade cannot be placed on the slideway, a trough of ¼-inch metal may be used, to cause the molten mass to run into the slideway. The surface on which the weld is to be made should be clean and dry. If the door of a German pillbox works on hinges, jamming cannot be accomplished by means of thermite grenades, since the molten mass cannot be controlled sufficiently to create a strong band between the door and the frame."

Rounding up the Booby Traps

"We haven't seen any booby traps for the past two weeks." That's the kind of statement that can spell trouble if it leads to any slackening of precautionary measures. As soon as Allied vigilance relaxes, the stage is set for the Germans to use one of the most vicious techniques of modern warfare. A technique, incidentally, at which the enemy is highly proficient.



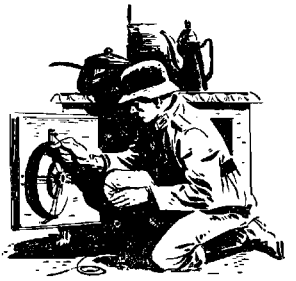
A well-prepared booby trap looks like a perfectly harmless object, of course. A bicycle resting against a farm house, a wheelbarrow standing outside the barn, a bucket waiting to be dipped into the cool well—these are everyday sights in the country, and yet nothing is simpler than for a German soldier to connect each of these to a pull-igniter before his unit withdraws. Clearly, certain elementary precautions are necessary when it is known that the enemy has occupied, or even merely passed through, a certain area. Trip and tension wires may be present in what seem to be the least likely places. After all, traps may be detonated by any normal activity such as opening a door or window, treading on loose floor boards, or disturbing any inanimate object indoors or out.

Nothing should be interfered with simply out of curiosity. In this business, continuous vigilance is the price of safety.

What sort of booby traps has the enemy been using lately? Here is a roundup, from the Western and Southern fronts, of typical instances of recent German booby-trapping activity. The traps may be divided into four categories: those actuated by pull-igniters, those actuated by pressure, mines with antilifting devices, and miscellaneous contrivances.

DEVICES ACTUATED BY PULL-IGNITERS

1. *Helmet.*—A steel helmet lying on the ground covered a *Sprengkörper 28* charge containing a *Z.Z. 35* pull-igniter, which was connected by wire to the inside of the helmet. A second wire connected the charge to a fixed point. Lifting or kicking the helmet would have set off the trap.



2. *Mine in Oven.*—A *Tellermine '42* was found secured to the rear of an oven door in the kitchen of a private house. A *Z.Z. 35* igniter had been inserted in the mine, with a wire connecting the igniter to the back of the oven. The door was slightly ajar; if it had been opened further, the mine would have exploded.

3. *Corpses.*—Egg grenades have been placed in the pockets of enemy dead. The actuating cords of the grenades are tied to strings, and the strings, in turn are tied to inconspicuous pickets driven into the ground nearby. When the corpse is moved, the grenade explodes.

4. *Fruit Trees.*—Fruit trees have been fitted with wires leading to pull-igniters and charges of high explosive. When Allied soldiers reach for the lower branches or try to climb the tree, the charges are detonated.

5. *Hedges.*—The following instance of booby-trapping a hedge at a point where Allied soldiers would be likely to work their way through is typical of many others. Three picric blocks with *Z.Z. 35* pull-igniters inserted in them were covered with stones, and were connected with wires to a nearby hedge.

6. *Fence Posts.*—Trip wires leading from the base of fence posts, and connected to pull-igniters and large buried charges of TNT, have been reported. Also, taut wires have led from fence posts to tension-release igniters *(Zu.Z.Z. 35)*. The latter set off small charges, which fire detonating fuzes and large buried charges.

7. *River Banks.*—The banks on either side of a river ford, usable only at certain times of the year, were booby-trapped in the following manner. Three 3-kilogram charges *(Geballte Ladung)* were laid side by side in each bank, with two *Z.Z. 42* pull-igniters screwed vertically into the outer charges. Ten-foot length of trip wire led from the igniters and were secured to wooden stakes. Anyone attempting to use the banks would have been likely to trip the wires.

8. *Roads.*—The Germans have tied grenades to trees on each side of narrow roads, and have strung trip wires across the roads so that the fish-pole aerials or other parts of vehicles will trip the wires.

9. *Telephone Lines.*—An enemy patrol came across an artillery observation-post line and cut it. In the immediate vicinity, they buried two S-mines, about 10 yards apart, so that the prongs of the igniters were about 1 inch above the ground level. Each loose end of the telephone wire was attached to a piece of fine cord about 12 inches long, and each cord led to a mine. The result was that, in the dark, a lineman picked up what he thought was merely a loose end of wire, and an S-mine exploded. (As the *Intelligence Bulletin* has previously reported, this ruse has also been employed by the Japanese.) The potential danger of such booby traps is of course considerably less in the daytime.

10. *Rubbish Heaps.*—The usual booby trap in a rubbish heap consists of an attention-catching object of some value as a souvenir, which is connected to a pull-igniter and a charge or antipersonnel mine by means of a wire or cord.

11. *Molotov Cocktails as Traps.*—Molotov cocktails may be used as booby traps when the Germans believe that particularly successful damage can be caused by fire. Just such a trap was found in a lumber yard. A small explosive charge of cordite with a detonator and primer had been attached to a large bottle of gasoline, which, in turn, had been lashed to a board. The device was to have been detonated by a pull-igniter, actuated by a trip wire. If the trap had worked, it would have spread flaming gasoline over a fairly large area, probably inflicting severe burns on personnel and certainly making fire fighting extremely difficult.

DEVICES ACTUATED BY PRESSURE

1. *Inverted Tellermines.*—The Germans often inverted a Tellermine, and inserted a *D.Z. 35* push-igniter in the bottom hole to make the device antipersonnel in effect.

2. *Mines under Planks.*—A combination of S-mines and Tellermines may be buried in a road trail, and covered with a plank. Thus pressure caused either by a vehicle or by personnel would lead to detonation.

ANTILIFTING DEVICES ON MINES

1. *Delay Igniters.*—Thirty-second delay igniters have been reported fixed to mines, presumably directed against personnel who may attempt to lift such mines by using a cable.

2. *Dummy Trip Wires.*—Recently a new type of antilifting device has appeared—one which could be used with almost any type of mine, and particularly with wooden mines. Such a device, used in conjunction with an Italian four-igniter mine, employed a stake driven into the ground about 3 feet from the mine, which had been buried about 1½ feet below ground level. A dummy trip wire connected the top of the mine with the stake, while another wire led from a pull-igniter in the bottom of the mine to the bottom of the stake. If the latter wire had been disturbed, it of course would have produced detonation.

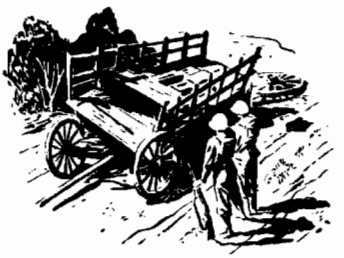
3. *Devices on S-mines.*—A wire may connect an S-mine with a standard 1-kilogram charge. One end of the wire is wound around the base of the mine's *S. Mi.Z. 35* igniter, while the other end is attached to a *Z.Z. 35* pull-igniter screwed into the 1-kilogram charge.

Also worth mentioning is an instance in which a wooden stake about 12 inches long was driven into the ground, with its top about 2 inches below the surface. A standard 200-gram charge *(Sprengkörper 28)* was wired to the stake, and a *Z.Z. 35* pull-igniter screwed into the charge. An S-mine with a wire string attached, then was placed in a prepared hole, and the other end of the wire was connected to the *Z.Z. 35* igniter. The igniter safety pin was withdrawn, and the S-mine itself was armed. As a result, detonation would be caused by anyone lifting the mine carelessly and rapidly, without having disconnected the wire sling. In addition, the S-mine itself remained a threat to unwary foot-sloggers.

4. *Pressure-release Antilifting Device.*—A mine may be laid on the pressure-lifting device *E.Z. 44 (Entlastungzünder 44)*, which is subsequently armed and packed around with earth. Lifting the mine allows

a rod, which has been kept down by the weight of the mine, to rise and release a striker in the *E.Z. 44*. This sets off the charge in the igniter and detonates the mine.

MISCELLANEOUS

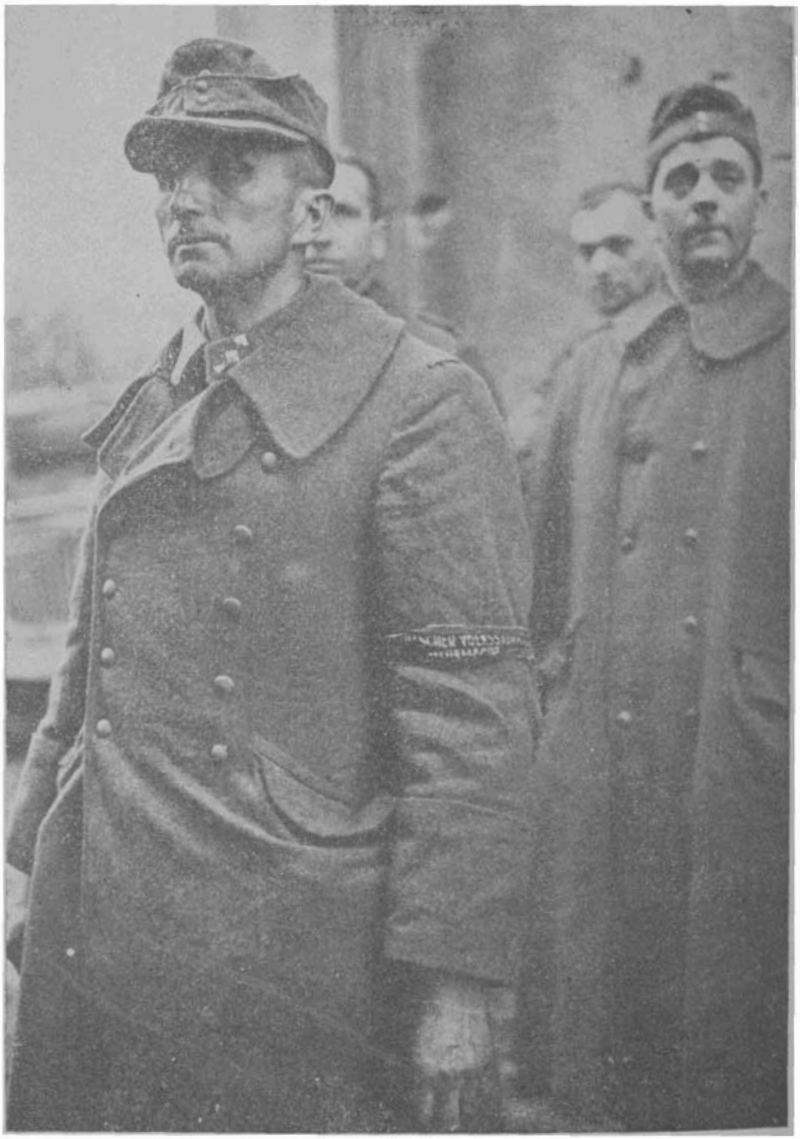


1. *Abandoned Vehicles.*—Abandoned vehicles, either wrecked or still intact, often are booby-trapped so that any movement of the wheels will result in an explosion. In the case of a motor vehicle, the booby-trap may be intended to function when the engine is started. The Germans sometimes use farm wagons in road blocks, and the possibility that such vehicles may have been booby-trapped should not be ignored. On a road in Holland, three abandoned farm wagons had been loaded with 15 cases of grenades and miscellaneous shells, and left blocking the road in such a manner as to give the impression that they had been abandoned in haste. Fortunately, a corporal inspected them carefully before ordering his detail to move them off the road. He found ten 200-gram charges on the bottom of one of the wagons, with a friction igniter *(Zdschn. Anz. 29)* attached by means of wire to a spoke of one of the wheels. Any movement of this wagon would have resulted in detonation.

2. *Tellermine Crates.* Tellermines in their original packing cases have been found fitted with igniters to prevent the mines from being withdrawn and used.

3. *Charges Concealed in Weapons.*—The Germans sometimes conceal a small charge in the mechanism of a rifle or Luger pistol that they plan to leave behind in a farly obvious place, to attract the attention of Allied soldiers. The charge, which is sufficiently powerful to injure a man severely, is detonated if the trigger of the weapon is pressed.

4. *False Signs.*—The Germans have been known to post signs in English indicating that road shoulders have been cleared of mines, when mines actually are present in these areas.



Whether dressed in civilian clothes or varied uniforms, Volkssturm members wear the organization's arm band.

THE GERMAN

Volkssturm

Of the measures taken to mobilize speedily the last manpower resources of the German nation, the most extreme is the creation of the *Volkssturm*, a national militia designed to supplement the defense of the homeland. The call to arms, which was issued on 18 October 1944, was literally a dragnet, sweeping into a single organization virtually all German males between the ages of 16 and 60 who were not already members of the German Armed Forces. The creation of the *Volkssturm* serves a double purpose, as far as the Nazi Party is concerned: first, to strengthen the defense of the Reich, and, second, to keep a large part of the population so thoroughly under military control that any incipient revolt against the Party will have a hard time thriving. It is the enemy's intention to have a strong hard core of Nazi fanatics dominating the *Volkssturm* at all levels.

In announcing the formation of the new militia, Hitler designated the Chief of the Storm Troopers, Schepmann, as Inspector of Weapons Training, and the Chief of the Nazi Motor Corps, Kraus, as Inspector of Technical Training. Himmler is charged with ordering the actual employment of the *Volkssturm* for local defense. However. it must be remembered that the militia is currently in the training stage, with its members continuing their ordinary jobs. When the *Volkssturm* is operating on a full-time basis, its employment may be directed by the Army.

The *Volkssturm* is definitely a bottom-of-the-barrel organiza-

German males between the age of 16 and 60 are liable for service in the new national militia.

tion. Although it may succeed in mustering more than ten million men for local defense inside the Reich, a conservative estimate indicates that less than half of these will be physically fit.

In one capacity or another, many of the *Volkssturm* personnel already were contributing their services to the German war effort when the call to arms was issued. It will be recalled that dozens of Nazi semi-military, service, and political organizations, regimenting practically every walk of German life, had

been in existence for some time. Because of these organizations, and because Nazi Party officialdom itself is so extensive that it even includes city "block leaders", the Nazi authorities long had had a very fair knowledge of the military and service possibilities of every male in Germany. Much had been done to exploit German manpower on a part-time basis wherever full-time service could not be performed. Thus service in the *Volkssturm* becomes merely an added duty for men who already have part-time jobs in other defense organizations or who work in war industries. As the Germans envisage it, a man who performs ARP tasks during an air raid, who has a route to patrol as a member of the *Stadtwacht* (City Guard), or who is a skilled laborer in a Messerschmidt plant will take his post in a *Volkssturm* squad and fight as an infantryman when his home area is attacked by Allied ground forces.

It is logical to infer that, as *Volkssturm* units are being formed, the abilities, physical fitness, and war work of the recruits will be taken into account. Limited-service personnel will be given local or static defense missions. Invalids and cripples, it is reported, will be reserved for headquarters work. Although youths of 16 are to be included in the *Volkssturm*, the lower age brackets in general are likely not to be represented very generously, in view of the fact that the German Armed Forces increasingly are drafting men younger than 18. Also, if a *Volkssturmmann* is drafted into the Armed Forces, his membership in the militia automatically terminates.

Despite the fact that the *Volkssturm* is inducting by age classes, an appeal for "volunteers" is being conducted in the usual Nazi manner. Working through the factory cells of the German Labor Front organization and other groups directly supervised by the Party, Nazi leaders have induced the entire personnel of certain factories and businesses to "volunteer" in a body, with the result that recruits pour in as fast as the train-

ing facilities can handle them, and faster than if they all had been drafted formally.

With the Nazi Party in charge of organizing the *Volkssturm*, the early stages in the development of this national militia have been expedited. Although each *Gauleiter*, or Nazi District Leader, is charged with the leadership, enrollment, and organization of the *Volkssturm* in his district, the largest *Volkssturm* unit seems to correspond to the next smaller territorial subdivision of the Nazi Party organization—the *Kreis*. In a city, *Volkssturm* organization might run something like this:

Territorial Political Unit	*Military Unit*
Kreis (roughly equivalent to a U. S. county; there are 920 *kreise* in Greater Germany)	*Bataillon* (battalion)
Ortsgruppe (roughly equivalent to a U. S. Congressional district)	*Kompanie* (company)
Zelle (literally "a cell"; roughly equivalent to a U. S. precinct)	*Zug* (platoon)
Block (a city block)	*Gruppe* (squad)

Not only each *Gauleiter*, but each *Kreisleiter*, has a *Volkssturm* Chief of Staff to assist in handling militia problems.

Although differentials may be introduced in the selection and assignment of personnel, Nazi leaders assert that all *Volkssturm* members will be given the same instruction. This is to consist of infantry training, with special emphasis on close combat. The rifle is the basic weapon. It is to be supplemented by submachine guns and light machine guns. Since there is almost no limit to the number of models of such weapons taken over by the Germans from conquered nations, it would be difficult to state exactly which small-arms models the *Volkssturm* will use. German, Czech, and Polish Mauser rifles already are in service,

The rifle is the basic weapon of the Volkssturm, which receives infantry training, with special emphasis on close combat.

and use will be made of the many thousands of captured Russian rifles and machine guns. Other equipment includes egg hand grenades and potato-masher hand grenades. For antitank defense, the *Panzerfaust* hollow-charge launchers have been promised to the *Volkssturm*. (The latest of these recoilless weapons has a range of 88 yards; earlier models have a range of only 33 yards.) German bazookas also may be furnished. Instruction in the handling of antitank and antipersonnel mines already is being given.

At present any turnout of the *Volkssturm* is likely to present a rag-tag-and-bobtail appearance, in dress as well as armament. The only item of clothing or insignia currently issued is a black arm band with the lettering "*Deutscher Volkssturm*" in a light color and with the word "*Wehrmacht*" directly underneath this. The Nazis have asserted that this arm band officially makes the *Volkssturm* members a part of the *Wehrmacht* (Armed Forces). It is left to the individual to provide the rest of the clothing. Uniforms of the Storm Troopers,

Hitler Youth, and Party territorial leaders will be encountered. Many men will simply wear civilian clothes. Already the lack of complete official uniform has caused a great deal of disgruntlement throughout the new militia. Many members feel that they are assuming the duties of soldiers, with none of the privileges. (Incidentally, there is no remuneration for service in *Volkssturm*, except when a member is taking part in actual combat.)

The effectiveness of the *Volkssturm* remains to be tested. In the past, organized defense of urban and rural areas by the local populace fighting in support of regular troops has indicated that a people defending their homes under such conditions are capable of putting up a most determined defense. *Volkssturm* elements were used in combat near Metz, but the poor showing that they made must be attributed primarily to the fact that they had only recently been mustered and that most of their brief time in the militia had been spent in digging fortifications. In future months the Nazis will discover and try to correct the outstanding defects of the *Volkssturm*, and their unquestioned talent for organization and military training must be expected to show at least a few tangible results. Just how much success the Nazis will have in using *Volkssturm* members as guerrilla fighters after local areas have been overrun by the Allies cannot be predicted. Much would seem to depend on how hard a core of Nazi fanatics each element contains.

[Note: As the *Intelligence Bulletin* goes to press, it is reported that rank insignia worn by the *Volkssturm* consist of silver stars worn on the lapel or on the collar. One star will indicate a squad leader, two a platoon leader, three a company commander, and four a battalion commander.]

IN BRIEF

A RAID ON A U.S. OUTPOST

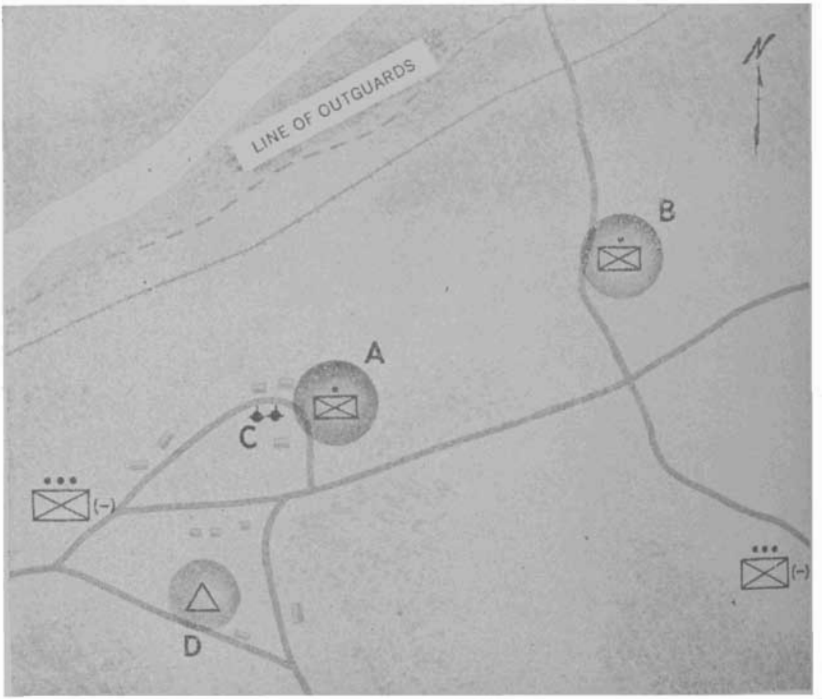
Early one morning the Germans staged a raid on a U. S. outpost, and captured or killed an officer and 10 men. Although there are certain discrepancies between the stories of the few available witnesses, the following is believed to be a reasonably accurate account of what happened.

The battalion was holding a small town with a platoon. An outpost at "A" was manned by the Platoon's headquarters, with outguards to the right and left. Another Platoon, 2 miles to the east, had an outpost manned at "B" with outguards to the front. A daylight observation post was situated in a church steeple at "D," 1½ miles to the south, and a mortar squad was situated in the town at "C" across the road from the Platoon's command post.

In the afternoon the Germans shelled the town and the steeple observation post with remarkable accuracy. Early the next morning, when it was very dark and stormy, a barrage of *Nebelwerfer* (rocket projector) and mortar fire fell in the vicinity

of the other Platoon's outpost at "B," and about 300 rounds of medium artillery fell in the town. This outpost was engaged by a 10-man enemy patrol just as the mortar and *Nebelwerfer* barrage was lifted. The patrol withdrew after a brief fire fight.

In the meantime, medium artillery fire continued to fall on the town. Just before this barrage was lifted, the outpost at "A" manned by the Platoon headquarters heard someone pounding on the door and yelling in very good English, "Let me in, will you? I want to get out of this barrage!" One of our soldiers opened the door, and the enemy tossed in a hand grenade. A U. S. soldier who had been posted outside the house escaped during the raid, but the remaining officer and nine men were not seen again. One other American was found dead in the house the following morning; he had been shot through the head, evidently



while standing near a window. The strength of the raiding party was not determined.

At about the same time the raid on the outpost-headquarters was being conducted, trouble was getting under way at the mortar squad's position. A voice behind the protecting wall was heard asking, "What have you got on the other side of this wall?" The mortarmen replied, "Two mortars," whereupon a hand grenade was thrown over the wall. Another grenade was dropped into a mortar barrel, and the barrel was blown open.

Obviously the enemy raid had been well planned and coordinated. The party had worked its way directly to the outpost they intended to raid. Following closely behind the German barrage, the enemy soldiers had passed the U. S. outguards unobserved. It is clear that the Germans were in possession of detailed and accurate information regarding the U. S. dispositions, presumably having obtained it from civilians in that area. The coordination of the artillery barrage with the activity of the raiding party was excellent, indicating that the raiders were continually in contact with their supporting artillery.

The exact time of the incident was not determined, but it occurred in the early hours of the morning. At 0300 the platoon leader reported by radio, "Nothing unusual."

The enemy unit which perpetrated this raid could not be identified, but the manner in which it performed its mission suggests that it must have been a special assault detachment, of the type organized in each regiment under a policy established by Kesselring during the Anzio beachhead stalemate.

MINEFIELD MARKING

Although German minefield marking varies at the discretion of local commanders, a fairly recent set of instructions issued

by an enemy division is helpful in adding to our knowledge of current practices.

The division ordered that minefields more than 1¼ miles behind the main line of resistance were to be marked off by fences 3 feet 3 inches high, consisting of three strands of wire. Intermittent signs were to bear the familiar "*Minen*" or "*Achtung! Minen*" but the skull and crossbones were to be omitted.

In wooded terrain, minefields in front of the main line of resistance were to be marked by a fence 3 feet 3 inches high, without any signs at all.

In open terrain, minefields were to be marked by a low fence, without signs, on the German side only. The fences were to be as inconspicuous as possible, so as not to give away the positions of the centers of resistance in the main line.

No special fences were to be erected around wire obstacles with booby traps or around "ramp" mines (*Rampernminen*) on roads.

Minefields at a short distance behind the main line of resistance were to be fenced around on all sides, and were to be marked with unobtrusive signs.

All pickets used for marking minefields were to be provided with a short verticle length of barbed wire.

Paths through minefields were to be 13 feet wide, with a central guiding wire suspended loosely between 4-inch stakes driven into the ground at intervals of 10 feet, to serve as a

guide for reconnaissance parties. Each path was to be covered by observed or fixed machine-gun fire.

The engineer company in each sector of the line was to inform all troops in its own sector regarding the position of *all* minefields. Local battalion commanders were held responsible for keeping an up-to-date plan of these minefields, and for ensuring that all members of their commands were fully informed about the locations and boundaries of the fields.

Incidentally, it is reported that in some instances dummy-minefield signs in any three colors *excluding* blue, whereas true minefields are identified by any three colors *including* blue.

TACTIC AGAINST INFANTRY-WITH-TANKS

The commander of a U. S. tank company describes a tactic that the Germans like to employ against Allied infantry supported by tanks:

"It was late in the afternoon, and one of my tank platoons was aiding a company of French infantry in capturing a ridge occupied by the Germans. The French company commander asked my platoon leader to fire on a house on the slope of a ridge about five hundred yards to our front, because it contained enemy machine gunners. The tank-platoon leader complied with his request, and with a few well-placed rounds of 75, soon chased the Germans from the house. The French infantry then continued to move on up the ridge. They soon ran into another house which presented the same obstacle as the previous one. This house was located about 1,000 yards away and a little to our right. As the tanks started to fire on the second target, the French captain noticed shells hitting the first house, around which some of his infantry had already established themselves. He hurriedly asked my platoon leader to cease firing on this place and to fire only at the new target. The platoon leader informed him that the shells were not coming

from our guns, and they must have been fired by the enemy. It took some time to convince him of this fact, for the bursts looked much like those of our 75's and had occurred at the same time our tanks had fired on the second target.

"This same thing has happened several times—varying slightly, of course, depending on the situation. We have found it to be a favorite trick of the Germans. It not only gives them a sure target and inflicts heavy casualties on us, but also tends to cause dissension between the tanks and infantry.

"We have learned to expect this return fire immediately after taking a certain position, and have made sure that the infantry unit we are working with understands what may happen. In certain cases we have attempted to keep the enemy confused by continuing light firing on an objective after having taken it (where the situation permits), and by keeping the infantry away from the definite points that we have just captured, such as buildings and well-defined terrain features."

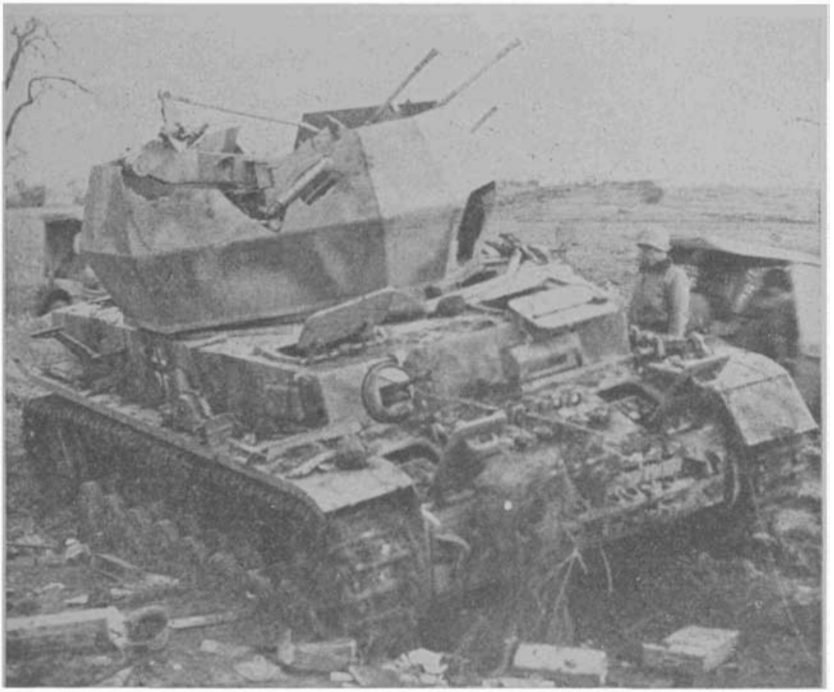
NEW GERMAN FLAKPANZER

A new German *Flakpanzer*, the third and latest type of antiaircraft tank the Germans have put into action on the western front, has been captured by U. S. troops during recent combat in France.

This self-propelled weapon consists of a 4-barrelled 20-mm antiaircraft gun, the *Flakvierling 38*, mounted on the standard *Pz.Kpfw. IV* chassis. The open-top turret is octagonal in shape, with each of the eight sides made of two plates or 1.6-inch armor. The top and bottom plates of each side are slanted inward at approximately 30 degrees from the vertical, and the turret has a 360-degree traverse.

It is a further development of the *Flakpanzer* which mounts the single-barrelled 37-mm *Flak 43* on the same model chassis. The *Flakvierling 38* is a quadrupled version of the single-barrelled 20-mm Flak 38, a gun that the Germans have

mounted on a modified ex-Czech tank chassis, the *Pz.Kpfw. 38 (t)*, for use as another type of *Flakpanzer.*



The Flakvierling 38, a four-barrelled 20-mm antiaircraft gun mounted on the Pz.Kpfw. IV chassis, is the newest version of the Flakpanzer to make its appearance with the German Army in combat.

Correction

An incorrect and dangerous method of throwing the *Panzerwurfmine* is illustrated in the photograph on page 79 of *Intelligence Bulletin*, Vol. III, No. 3.

The soldier in this photograph is holding the *Panzerwurfmine* in the armed condition, with the cloth vanes open. This is the proper way to handle the weapon: Grasp the grenade, holding the vanes in the *closed* position, and remove the cap. Maintain this grip as the weapon is thrown.

Diversionary tactics—the Japanese version of commando raids—have become a standard form of warfare in the Japanese Army. U. S. troops in action in the Pacific must be prepared for harassing raids designed to disrupt supply lines, to create confusion in rear areas, and to divert attention from other operations.

JAPANESE DIVERSIONARY TACTICS

To compensate for lack of air power and effective long-range artillery, the Japanese Army has adopted the practice of organizing special troops equipped to penetrate enemy lines to raid airdromes, supply areas, and headquarters, and to disrupt communications in the combat zone by harassing or destroying supply trains and other motor convoys.

Organized into groups known officially as Diversionary Units, these soldiers are trained to strike with surprise, to create a maximum of confusion and devastation, and to withdraw as suddenly as they had appeared. They may be especially equipped for their work, and may move to their operations area by submarine, by air, or by infiltrating in small groups through the forward positions of the opposing force.

Although not activated on the same large scale as British Commandos and U. S. Rangers, the Japanese have been known to organize diversionary troops for specific missions. These units may vary in size from well-equipped companies of selected men to hastily organized raiding parties of a squad or more. There appears to be no provision in the Japanese Army tables of organization for a permanently established and standardized Diversionary Unit. The more complex of these units apparently are composed mostly of volunteers organized into temporary companies. These companies are attached to a larger field force for the duration of a specific campaign. If the mission should require it, several of these companies may be banded together to form an even larger organization under the command of a colonel.

A typical diversionary company of this type is composed of approximately 200 officers and men organized as three platoons of three squads each. Unusual is the fact that a large percentage of the personnel may be commissioned, an average

platoon consisting of a first lieutenant serving as platoon leader, 12 second lieutenants serving as squad leaders and assistant squad leaders, and 18 men. There may be practically no noncoms, since their duties are performed by junior officers. About half the unit strength may consist of men who have volunteered for this type of combat.

Although a Diversionary Unit may be employed regularly in raiding missions against ground positions, headquarters, air fields, and similar installations, some of their primary missions are to attack convoys of supply trucks, artillery, or headquarters units in transit. Such raids are conducted on the theory that, during a movement, security is less stringent and the combat capabilities of a unit are diminished.

One well-organized Diversionary Unit advocated two methods of operating against a so-called "moving objective"—the "attack in force" and the "concealed attack." Such tactics are typical of the methods by which a Diversionary Unit will try to operate, although in actual combat they seldom achieve such smooth operation.

Attack in Force

The attack in force, as the name implies, is a swift, all-out attack delivered either from ambush against a moving convoy, or, by surprise, against a unit in transit which has halted or bivouacked for the night. In either case, the primary mission is the destruction of the vehicles and the weapons or supplies they carry. The common procedure is to deal a hard blow to personnel, and, in the resulting confusion, to destroy, burn, or capture equipment.

The preparations for an attack on a motor convoy are essentially the same as those involved in an ordinary Japanese assault operation. Before a definite plan is made, a detailed

reconnaissance is made. Painstaking care is taken to collect terrain information and to find the most traveled supply routes, the customary rest or bivouac areas, the extent of routine march-security measures, and the type of motor transport operating in the sector.

Along the supply route, an area is selected to offer a minimum of cover and protection to a convoy, but to permit the disposition of ambushing troops so they may fire upon and charge the convoy effectively. Road blocks or land mines are prepared to block the front and rear of the column at the moment the attack begins. If necessary, the flanks of the road may be mined to prevent the escape of vehicles across country.

The disposition of the Japanese unit will vary according to the terrain. Usually, it will be concealed along one flank of the convoy route, either massed or disposed in groups at several points. The distance between the ambushing troops and the road will depend upon the terrain and the degree of security methods expected from the convoy. Fire power is concentrated in the foremost ranks of the ambush; on occasions when equipment is the main objective of the attack, the attackers may be divided into a covering unit and a demolition unit.

Once the unit has taken its ambush position, every man remains on the alert to strike at any moment. Because a large number of observers might disclose the existence of the ambush, the unit commander himself watches for a hostile column.

When the convoy enters the ambush, the advance guard is allowed to pass unmolested, and the Diversionary Unit waits for the main body. At the most opportune moment, the road is blocked according to plan, the ambush opens fire, and an attack is launched at the height of the ensuing confusion. If the convoy is traveling with a large interval between vehicles, the ambush may not open fire and attack until the lead vehicle

has been halted and until the following vehicles have been allowed to close up and shorten the column.

In conducting such an attack, the Diversionary Unit depends for success upon the total surprise and disorganization of the convoy. In training instructions, overenthusiastic officers are admonished "not to foolishly expend your energy to accomplish the mission if it is perceived that the enemy has prepared for resistance." Similarly, once the shock of surprise and disorder has passed, and the immediate mission has been completed as well as circumstances permitted, the Japanese raiders do not hang around to mop up isolated elements that have succeeded in defending themselves. Instead, the attackers withdraw and proceed to a predetermined assembly point.

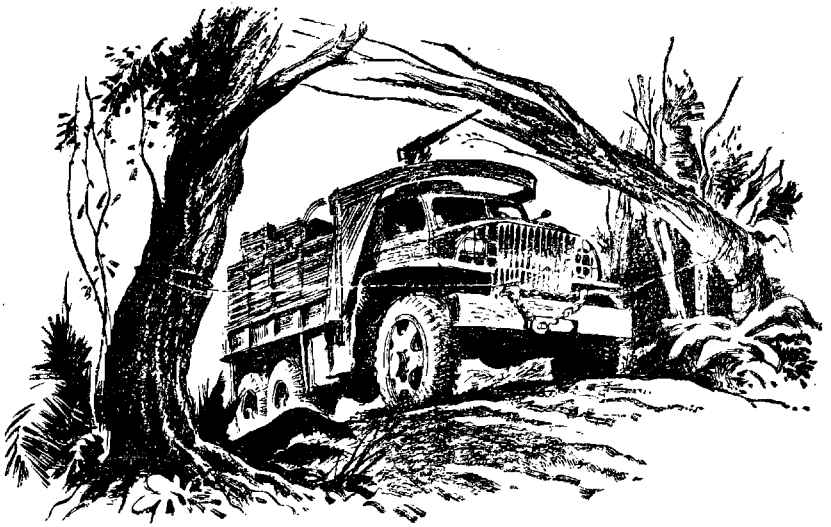
Concealed Attack

The so-called "concealed attack" advocated for use by Diversionary Units is a Japanese expression for the normal undercover sabotage of supply lines that might be expected of guerrilla units operating in enemy occupied territory. In this type of operation, the Diversionary Unit will try to avoid contact with opposing troops, and will attempt to operate with secrecy from a base established behind their opponent's lines.

Great stress is placed on the use of explosives and mines to destroy vehicles, to block supply routes, and to demoralize rear-area troops. One Japanese headquarters encouraged the following methods of concealed attack:

1. A tree on the side of a mountain road is cut almost through. A steel wire, tied to this tree, is stretched across the road so that a passing vehicle that strikes the wire will fell the tree thus causing damage to the vehicle.

2. Vehicles crossing a bridge are destroyed by pressure mines placed under the planking.



A tree on the side of a mountain road is cut almost through. A steel wire, tied to this tree, is stretched across the road so that a passing vehicle that strikes the wire will fell the tree, thus causing damage to the vehicle.

3. One section of a bridge is damaged so that the weight of a passing vehicle will cause it to collapse.

4. Obstacles are laid on steep, winding roads.

5. Land mines or time bombs are laid at intervals along extended routes in forests, swamp areas, and cliff areas. They are adjusted so that the explosion of the farthest mine would cause the explosion of other mines.

Presumably, this arrangement is designed to damage several vehicles when the lead vehicle of a convoy detonates the key mine.

Whenever possible, a Diversionary Unit engaged in anti-vehicle operations of this type will establish a hidden command post, from which rear-area traffic can be observed. Demolition details will be dispatched from this command post to execute

specific missions. Commanders are instructed to ensure that, whenever an explosive is used, a few men are left behind to observe its effectiveness.

Although, under many circumstances, Diversionary Units may be employed on suicide missions, they are not organized to be expended recklessly in combat. When the mission has been completed, or when the unit is not able to sustain itself longer in the hostile territory, it will return to the Japanese lines either by infiltration, or by a prearranged evacuation by water.

SOUTHWEST PACIFIC

It is known that the Japanese have had various diversionary companies throughout the Southwest Pacific—a typical company strength being from 100 to 140 men. Organization within these companies is apparently extremely flexible, with the use of various attack "units" advocated for tactical purposes.

Although no definitely identified commando raids are on record in this theater, early in 1944 a Japanese headquarters issued its interpretation of rules for commando warfare based upon the experiences of a First Lieutenant who had commanded a so-called "commando unit" in the Southwest Pacific. These lessons were reported as being particularly applicable to commando warfare in the "uncivilized" jungle country of New Guinea.

Like all diversionary companies and other Japanese raiding troops, the commando unit depends upon surprise to enable its comparatively few men to attack larger bodies of hostile troops. Its missions parallel those of other raiding parties in that the commando unit also is designed to strike at hostile higher headquarters, air fields, advance bases, and supply lines.

The commando unit recommended by the enemy headquarters is distinguished by its unusual organization. The military personnel of the unit are specially selected men—not more than 30 in number. If possible, however, the unit will have as many natives as soldiers at its command. When traveling in the jungle, each man will carry complete equipment, but in action a commando soldier will carry no more than approximately 40 pounds of equipment, including arms and ammunition.

Apparently this recommended Japanese commando unit is intended to work in close cooperation with friendly natives. Prior to an operation, the unit will endeavor to set up a spy net of natives in the operation area.

Its intelligence complete, this commando-native force generally will have some distance to travel before it reaches the objective to be attacked. Usually this distance will not be more than 40 miles from the unit's base, but, if necessary, the commandos will extend the range of their activity by setting up two or three advance bases between their main base and the point of attack. When the unit travels on foot, it will move from 8 to 15 miles a day. By native canoe, the commandos generally will try to make approximately 20 miles a day when traveling up a river, or 40 to 50 miles when traveling downstream. When supply is by manpower, the load should not exceed approximately 40 pounds per man.

Before an attack is launched, an assembly point somewhere between the advance base and the point of attack is decided upon. The Japanese describe the ideal assembly point as one which has natural defensive features, is some distance from rivers and roads, and consequently is not easily approached by hostile troops.

Preparations for the attack will be made during the day, and

the attack will be launched at dusk, during the night, or at dawn. Before attacking, the commandos will attempt to infiltrate to within 100 yards of the objective, provided the situation permits. An attack during a torrential rain or gale is recommended, but it is pointed out that escape afterward is sometimes "difficult." The commandos are instructed that when they attack a headquarters, an effort should be made to capture codes, new weapons, and documents. However, they are cautioned not to lose the opportunity to escape so they may participate in future action.

Throughout the course of these operations, the unit will keep in touch with its higher headquarters by radio, or, if necessary, by runner. Friendly airplanes will be signalled by smoke candles or fire smoke.

BURMA

A recent analysis of the infiltration tactics of Japanese troops in Burma, coupled with information from enemy sources, indicates that the Japanese there established three distinct roles for units assigned to diversionary missions behind Allied forward defense positions.

Although the mission of some of these raiding parties closely paralleled that of more highly trained Diversionary Units, there is no evidence to indicate that the troops involved in Burma have been other than the ordinary infantry and engineer soldiers of the Japanese Army organized on the spot for their specific missions. Most of the raiding activity was confined to within a few thousand yards behind the Allied line, and has been of a type which always must be expected of any Japanese ground force.

The Japanese have classified raiding parties into three types according to their general missions—the *Teishintai,* or raid

unit; the *Betsudotai,* or flying column; and the *Toppatai,* or penetration unit. This seems to be the pattern of diversionary tactics in Burma.

Raid Unit

The *Teishintai,* or raid unit, is the infantry-engineer demolition team which has been encountered in nearly every large-scale jungle operation. This infiltration unit of between 20 and 30 men is given the mission of demolishing guns and motor equipment in artillery positions and vehicle parks.

One battery experienced five of these suicide assaults, and an officer commented that as long as artillerymen are prepared to cope with these attacks, they are of a nuisance value only. On occasion these raid units, rather than assault the artillery positions openly, would take up a position on a nearby hill where, with automatic weapons fire, they would attempt to wipe out the gun crews.

Flying Column

Raids of a harassing nature, designed to disrupt rear communications temporarily before the raiding party returns to its own lines, are the function of the *Betsudotai,* the so-called "flying column."

Such a Japanese force, of about 150 soldiers and fifth-columnists, infiltrated through the Allied lines in the Arakan, Burma, on one occasion. Moving through the hills to a point 10,000 yards in the rear of the Allied forward positions, they launched an attack upon the line of communication, timing this assault with a general Japanese attack on the Allied eastern flank. This attempt to create disorder in the rear area actually resulted in little more than some slightly damaged bridges and a few burned trucks.

Penetration Unit

The mission of a penetration unit, the *Toppatai*, is very similar to that of the flying column, except that the tactical employment of the unit is related to offensive operations.

In conjunction with a general offensive, units of a company or larger will infiltrate, or seize by assault, a key terrain feature or some other tactically advantageous position in rear of the forward Allied line. This position, which usually will be on the line of communication, will be held at all costs until it is reached by the main Japanese advance.

Two instances of such a maneuver have been reported. Once a general Japanese offensive in the Arakan opened after a penetration unit of about one company with medium machine guns seized and occupied a hill about 3,500 yards behind the Allied positions. A similar attempt was made by a penetration unit which established a strong position in a group of small hills 2,000 yards behind the then-existing forward lines. The position served as a base for enemy patrols, and at times diverted some Allied troops in attempts to liquidate it. It was necessary only to drive the force from the outer edges of the position to neutralize the tactical value of this penetration.

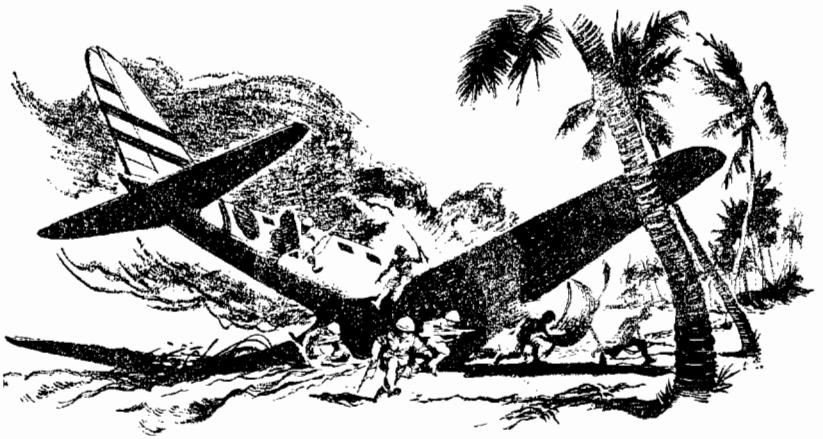
PHILIPPINES

The current Philippine campaign has produced a clear example of action by Japanese troops from a well-organized Diversionary Unit. It took place when a small-scale airborne raid was attempted behind the American lines on Leyte. The operation was typical of the type advocated for Diversionary Units, but it best illustrates how Japanese tactical doctrine, when given the test of actual execution, so often falls short of the enemy's expectations.

An enemy source says Diversionary Units may infiltrate by air—that "parachutes, gliders and transport planes can be employed. As landings are to be accomplished at dawn or at dusk, the location of the landing area, its condition, and the route of infiltration after the landing must first be investigated secretly and thoroughly."

Early on the morning of last 27 November, three transport planes each loaded with from 20 to 25 commandos from a former Southwest Pacific Diversionary Unit deliberately crash-landed in U. S. occupied territory. Two of the planes landed on the beaches on the east coast of Leyte. The third plane was shot down over an airfield before it could land.

The two planes which crash-landed on the beaches succeeded in discharging their cargoes of raiders in an area not immediately occupied by U. S. troops. Two Japs from one plane were killed by troops approaching the landing in an amphibious vehicle, the remainder fled into the jungle, to be tracked down by U. S. patrols.



The planes which crash-landed on the beaches succeeded in discharging their cargoes of raiders in an area not immediately occupied by U. S. troops.

The exact objective of these airborne raiding parties may never be determined, but apparently they were sent upon a mission of raiding and destruction to divert attention from the operations in western Leyte, then entering their final and decisive phase. An examination of the equipment of the dead commandos disclosed musette bags filled with hand grenades, antitank mines, demolition charges, and concentrated rations—the accoutrements of the diversionary commando.

THE 150-MM MORTAR

The Japanese Army, which has relied heavily upon the trench mortar for fire support, has developed a 150-mm mortar.

Called a "medium" mortar by the Japanese, this Model 97 (1937) 150-mm weapon is a conventional smooth-bore, muzzle-loading, bipod-mounted mortar of sturdy construction. Captured on Peleliu Island, this weapon is the largest Japanese mortar yet found. There it was emplaced in a concrete pit with the muzzle level with the top of the pit.

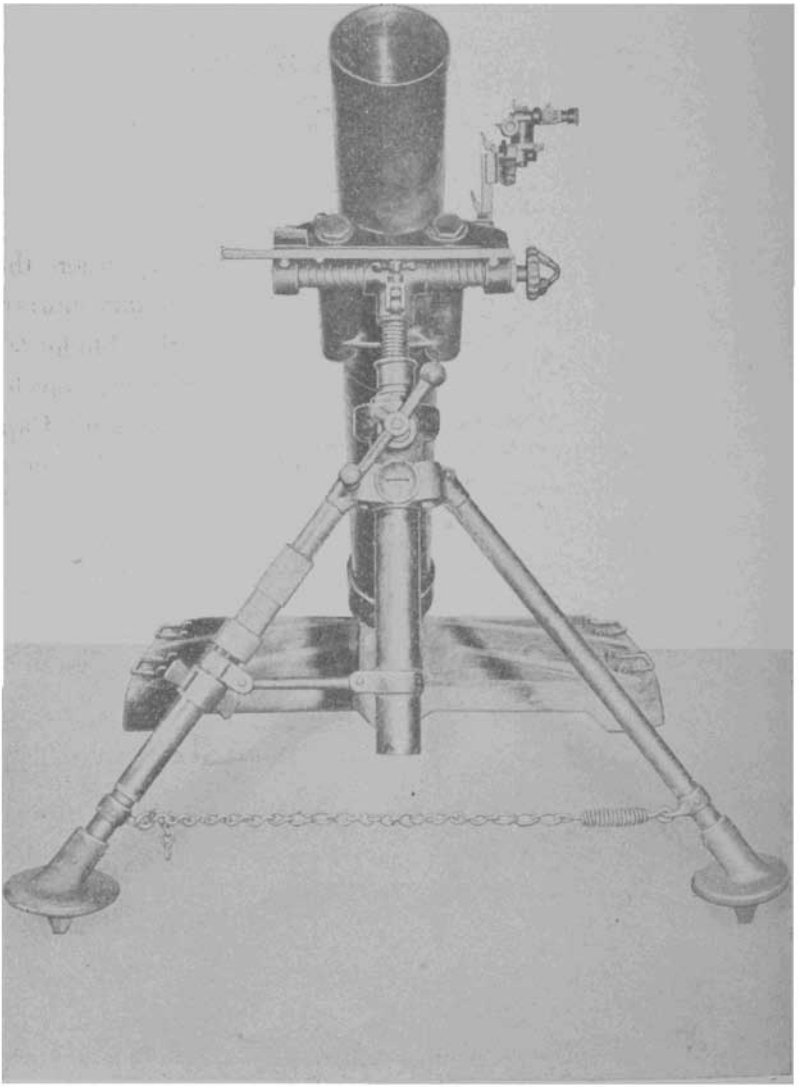
This 150-mm mortar, which resembles in design the standard U. S. 81-mm mortar, weighs 770 pounds complete with sight, and fires a conventional type of high-explosive shell weighing approximately 57 pounds.

The weapon is sighted by means of a 3-power panoramic elbow telescope, and the Japanese claim it will throw a projectile a maximum 2,187 yards. Bursting radius of the shell is reported to be 65 feet, with some fragments thrown 100 feet further.

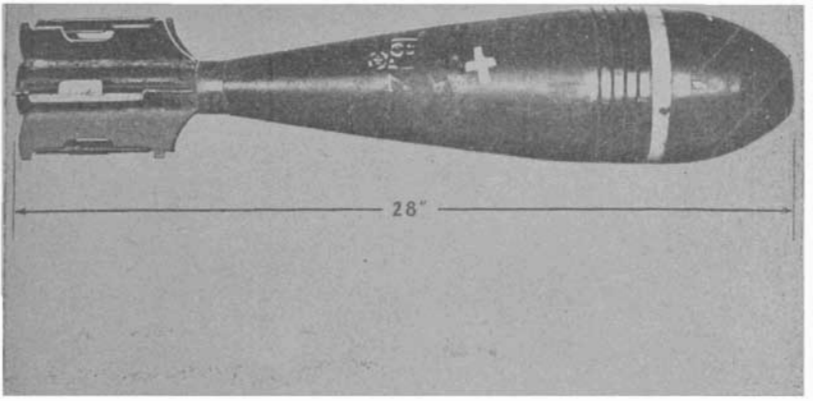
For transport, the mortar—including the sight—breaks down into these five component parts:

Tube	257 pounds
Base Plate	337 pounds
Bipod and elevating gear	100 pounds

Traversing gear, shock-absorbers, and mortar clamps ..... 71.5 pounds
Sight ..... 1.5 pounds



The Japanese Model 97 150-mm mortar, largest enemy weapon of this type yet encountered by U. S. troops in the Pacific.



The 150-mm mortar shell weighs approximately 57 pounds. The bursting radius is reported to be 65 feet.

The tube is 75.37 inches long and has a reinforcing muzzle band, while the heavy, ribbed-steel base plate measures 17.75 inches by 35.5 inches.

The weapon is assembled, adjusted for fire, and operated like the U. S. 81-mm mortar. However, the firing mechanism resembles that of the Japanese Model 99 81-mm mortar, using a firing-pin cam shaft built into the base-cap, rather than a fixed firing pin.

The Japanese are known to have another Model 97 150-mm mortar, which has not yet been encountered. It is reported to weigh 1,540 pounds and to have a maximum range of 3,828 yards. There is a possibility that this mortar may be installed on a mobile mount.

First reports from Leyte tell of increased use of land mines by the Japanese defenders.

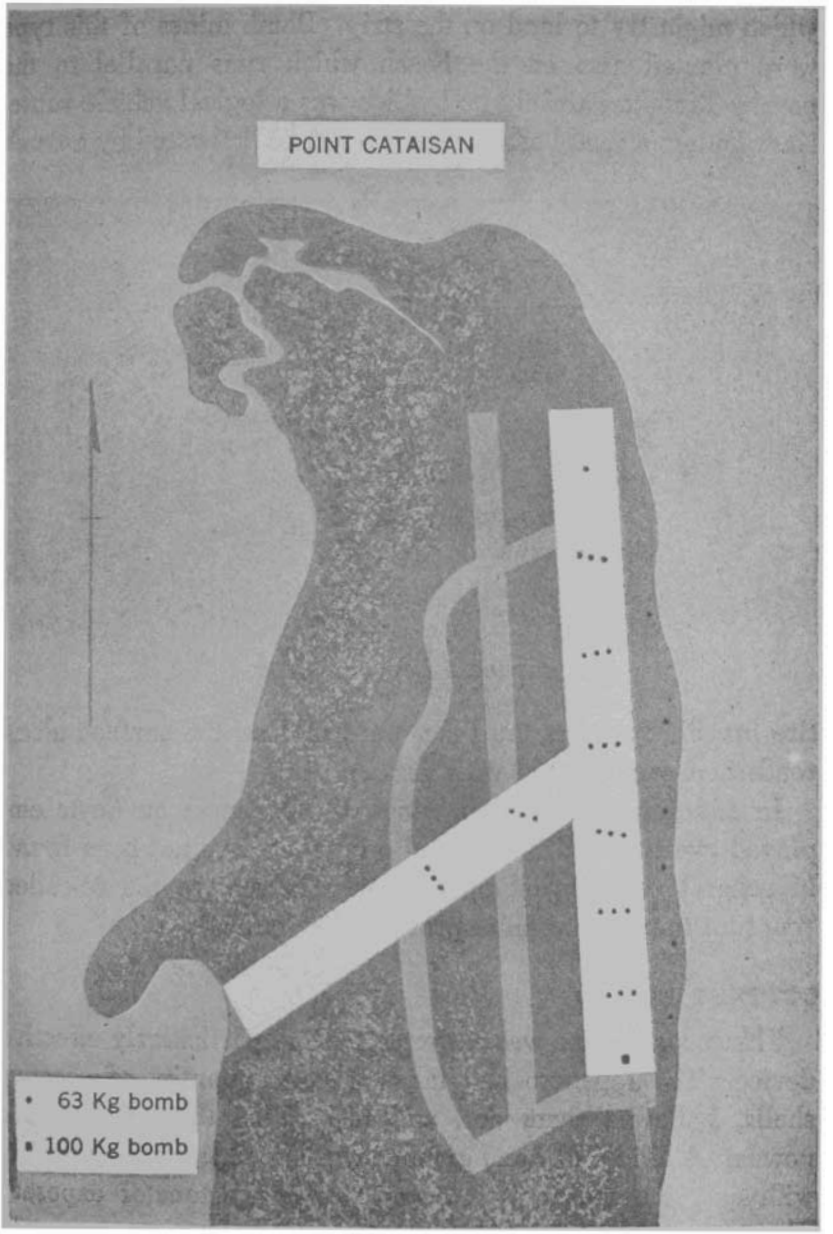
ENEMY MINES ON LEYTE

As had been anticipated from the trend of previous operations, U. S. troops landing on Leyte found that the Japanese had made practical and extensive use of minefields and booby traps in the planned defense of the island.

Preliminary reports indicate that although a decided effort at mining had been attempted, improvised mines were used more often than standard enemy demolitions. Chief of these were aircraft bombs set into the ground with an armed nose fuze exposed as the detonator. A haphazard use of bombs in this manner was encountered before by Sixth Army troops in several Southwest Pacific operations.

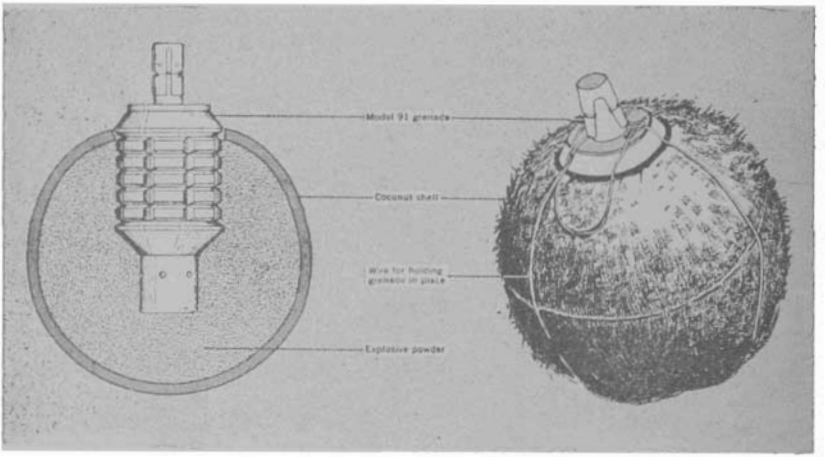
BOMB MINES

On Leyte, the principal minefields were found on the air strips at Tacloban and Dulag. Here 63-kilogram aircraft bombs had been planted in groups of three at intervals along the length of the runways—an obvious attempt to destroy aircraft



Tacloban air strip. Dots indicate the approximate location of Japanese bomb mines found buried on the runways and the nearby beach.

which might try to land on the strip. Bomb mines of this type were planted also on the beach which runs parallel to the nearby Tacloban airfield and which was a logical vehicle route. Near Dulag, armed bombs, which could be detonated by a truck



Japanese Coconut Mine

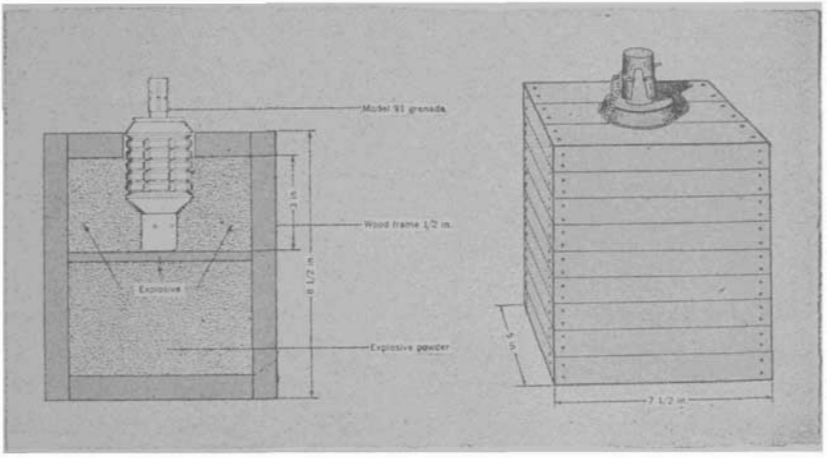
tire brushing against the fuze, were laid on the surface along roads and camouflaged with grass.

In addition to the bomb mines, the Japanese on Leyte employed two types of improvised mine that have not been found in general use in past operations. These were the so-called "coconut mine," and an improvised box mine.

COCONUT MINES

The coconut mine was a simple but not particularly effective device. The Japanese had taken a large quantity of coconut shells, hollowed them out, and then filled them with black powder. A Model 91 hand grenade was imbedded in the powder, with only the grenade's 5-second pressure detonator exposed. These makeshift antipersonnel mines were used as pressure detonated booby traps, and were easy to camouflage in natural

surroundings. An observer has reported that these improvised demolitions also served the enemy as hand bombs when whirled and thrown at the end of a 3-foot fiber rope. On detonating, they made a terrific explosion, but did little damage.



Japanese Improvised Box Mine

BOX MINES

Crude, improvised box mines were found to be a fairly common device. Constructed in several sizes, these mines consisted of a wooden box filled with picric acid or ammonium picrate explosive blocks. Like the coconut mine, these demolitions were detonated by a Model 91 or Model 97 pressure-detonated hand grenade which was set into the explosive, but with the armed fuze exposed. Many of these mines were found hidden in the grass along roadsides, or set as booby traps beneath staircases and floorboards in houses where the Japanese had been storing ammunition.

Many different sizes of this box-type mine were found constructed for time-fuze or electrical detonation. On the Maintez River the retreating enemy attempted to demolish a bridge with

eight of these mines bolstered by 21 cases of 75-mm shells. The electric caps used were of a type similar to U. S. manufacture.

Although improvised mines were most common, many standard Model 93 (tape-measure), Model 99 (magnetic), and Model 3 (pottery) mines were found stored in ammunition dumps or emplaced along roads as antivehicle demolitions. Some Model J-13 antiboat mines also were found on A-day near the landing beaches ("A-day" for the Leyte operation was the equivalent of the familiar designation, "D-day").

ANTIBOAT MINES

At one place a tank trap consisting of a ditch 20 feet wide and 10 feet deep was located 100 yards inland of a landing beach. This trap was discovered to be heavily mined with this hemisphere antiboat mine. The enemy had made no attempt to place these mines according to a definite pattern. Some were buried completely, some half buried, and others lay exposed above-ground. But all were scattered haphazardly throughout the barrier.

Although indications on Leyte are that the Japanese have tended to use mine warfare to an extent greater than has been encountered in the past, preliminary reports indicate the Japanese are still lacking in adequate land mines and minefield doctrine. However, as the enemy improves his technique with time, U. S. troops must be prepared for more effective antipersonnel and antivehicle mining by Japanese units.

Remote-Control Mines in Anti-Tank Warfare

One of the latest antitank methods now advocated by the Japanese is the use of remote-control land mines operated by engineer troops. These are men who have been trained to function as an integral part of infantry antitank assault teams. Known to the enemy as Close Quarter Combat Units, these teams have been in a state of continual development in the Japanese Army since the advent of tank warfare in the Pacific.

Instructions issued last summer to Japanese troops in the Southwest Pacific clarified the duties of these units, and outlined controlled-mine tactics, in an apparent effort to raise tank fighters to a status above that of arbitrarily organized suicide squads.

The basic components of a Close Quarter Combat Unit are its so-called "land-mine squads" and "destruction squads." These squads, of which there may be several in the unit, may be supported in action by a "reserve squad" and a "covering squad."

The successful tactical employment of such a unit seems to hinge upon the part played by the land-mine squads. These squads are composed of ten men each, with a noncommissioned

officer in command of each squad. Since they must be experienced in minelaying, a good portion of the engineer strength of a unit is likely to be included in its land-mine squads. One man in each squad is designated as an "igniter"; presumably his is the responsibility of exploding the controlled mines at the proper moment. Actually, a squad must play a dual role: it not only lays and explodes the land mines, but must engage hostile supporting infantry as the antitank assault develops. Consequently, each squad is equipped with two, and sometimes three, light machine guns.

In preparing to attack hostile tanks, the land-mine squads plant remote-control mines along a road, defile, or similar corridor through which the advance of tanks is anticipated. These mines, usually electrically detonated, may be standard Japanese antitank mines, prepared dynamite charges, or aircraft bombs wired for detonation from a safe distance. It is interesting to note that the Japanese have conducted large-scale experiments with bombs used in this manner and claim that they are highly successful. When the mines have been laid, the Close Quarter Combat Unit takes an ambush position in such a way that the destruction squads can attack the tanks and the land-mine squads can engage the supporting infantry.

After the hostile tanks and infantry enter the mined area, the designated igniters explode the mines at a time when they will have the greatest effect, and the mine squads engage the infantry, attempting to separate them from the tanks.

In the resulting confusion, and while the supporting infantry is supposedly engaged, the destruction squads will rush the tanks with armor-piercing mines and prepared explosive charges, to destroy tanks not disabled by the controlled mines. Throughout this action the reserve squad and the covering squad give support fire to both the mine and destruction

squads. As the action progresses, personnel of the reserve squad are used as replacements for the mine and destruction squads as they are needed.

When the tank-destroying mission has been completed, the unit withdraws under the protective fire of the covering squad.

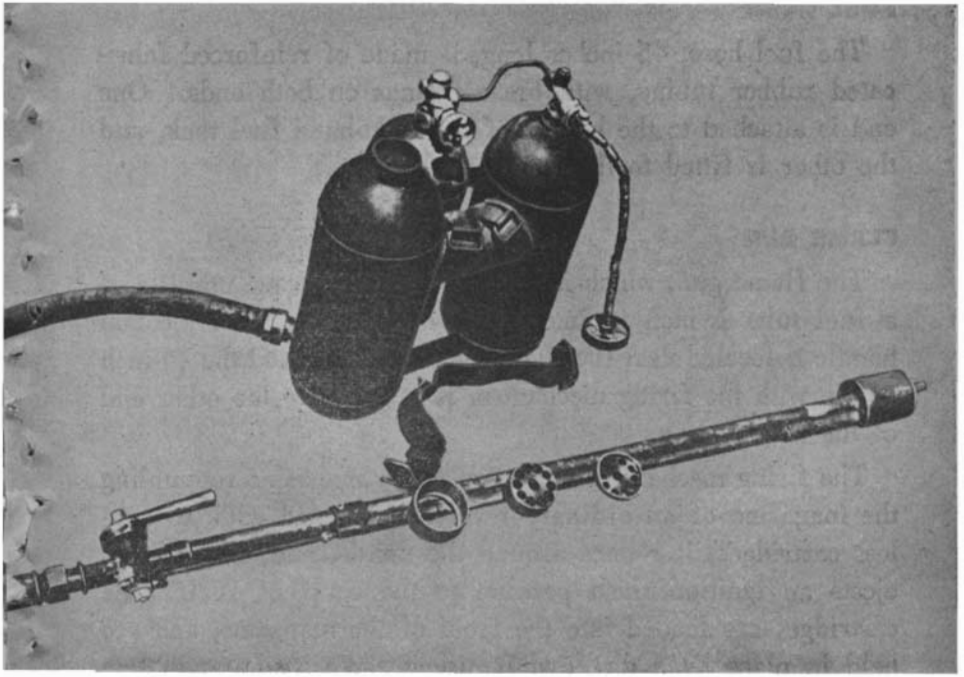
PORTABLE FLAME THROWER

The portable flame thrower, a standard weapon of pillbox assault teams, has not been used extensively by the Japanese. However, the enemy is known to be equipped both with flame throwers and with flame-thrower troops, and must be considered capable of using this weapon extensively in future operations. Thus far he has used them only in isolated instances ever since the start of the present Pacific war.

Two types of portable flame thrower are standard throughout the Japanese Army—the Model 93 and the Model 100. However, since there is so little difference between the construction of the two types, they may be regarded virtually as identical weapons. Each model consists of three principal groups: fuel unit, fuel hose, and flame gun. A modification in the construction of the flame gun is the only difference between the two types of flame thrower.

FUEL UNIT

The flame-thrower fuel unit consists of two 15-inch cylindrical tanks, each of which is 6 inches in diameter. Hemisphere-shaped at both ends, the tanks are connected at the top and bottom by a welded pipe which permits fuel and pressure to flow evenly in both tanks so that they may operate as a single unit. The total fuel capacity is $3\frac{1}{4}$ gallons.



The Japanese flame thrower, showing the fuel and pressure tanks, the flame gun, and the disassembled igniting-cartridge magazine.

A third tank, slightly smaller but of the same shape, is included in the fuel unit, and contains nitrogen or air under pressure. This pressure cylinder is attached to the back and center of the two fuel tanks. Air pressure, which forces the fuel from the tanks into the flame gun, is let into the fuel tanks through a tube running from the top of the pressure cylinder to the top of the left fuel tank. This pressure is controlled by a manually operated needle valve, one on the top of each of these two cylinders. The top of the right-hand fuel tank is fitted with a screw cap for filling the containers with fuel.

This three-tank unit is fitted with straps which permit it to be carried on the operator's back like an infantry pack.

FUEL HOSE

The fuel hose, 45 inches long, is made of reinforced fabricated rubber tubing, with brass fittings on both ends. One end is attached to the bottom of the right-hand fuel tank, and the other is fitted to the flame gun.

FLAME GUN

The flame gun, which is either 3 or 4 feet long, consists of a fuel tube 1 inch in internal diameter. The fuel ejection handle is located near the fuel hose connection, and the $\frac{1}{4}$-inch nozzle with the firing mechanism is attached to the other end of the tube.

The firing mechanism is a 10-chamber magazine resembling the magazine of an ordinary revolver. Loaded with 10 rimless cartridges, it rotates around the nozzle, and, when fired, ejects an ignition flash parallel to the spurt of fuel. The cartridges are loaded into the front of the magazine, and are held in place by a threaded retaining cap with holes in line with the cartridge chambers.

The fuel ejection handle, which fires the cartridges when it opens the fuel ejection valve, is in the closed position when it is parallel to the fuel tube. When this handle is turned at right angles to the tube, a continuous jet of fuel is released and a cartridge is fired, thus igniting the fuel. When the handle is returned to its position parallel to the tube, the flow of fuel stops, and the magazine revolves to place a new cartridge in the firing position.

CHARACTERISTICS AND OPERATION

The Japanese flame thrower may be carried easily. When filled, the tank assembly weighs 55 pounds. The fuel tanks will hold 3.25 gallons of fuel—a mixture of kerosene, gasoline, and fuel oil. This fluid can be thrown to a maximum

range of 25 to 30 yards. The duration of a continuous discharge is from 10 to 12 seconds.

To operate the flame thrower, the operator first opens the valve on the pressure tank. The valve on the left fuel tank then is opened, and the gun is ready for firing. To fire, the operator aims the gun at his target, and turns the fuel ejection handle on the gun 90 degrees to the right. This simultaneously ejects the fuel and ignites it when the igniting cartridge fires. To shut off the fuel, the fuel ejection handle is returned to its original position.

JAPANESE FLAME-THROWER TROOPS

It is known that flame-thrower companies exist in the Japanese Army, and that Japanese infantry also have used this weapon. Division engineer regiments are equipped with from six to a dozen.

Like other armies, the Japanese Army employs flame throwers principally in assault operations against pillboxes and similar fortifications.

The Japanese also use the flame thrower as an antitank weapon. Experiments have convinced them that a flame-thrower either can temporarily stop a tank and thus leave it vulnerable to destruction by explosives, or—if the weapon is used to full effect against the air intakes—can put the tank and crew permanently out of commission.

NEW JAPANESE ARMY INSIGNIA

As the U. S. Pacific offensive draws closer to the Japanese homeland, American soldiers may find on killed and captured Japanese a new type of collar and sleeve insignia.

Before the war began, the Japanese were very security-conscious. Their Army planned to discard, in wartime, not only insignia which would identify the number of the unit to which a man belonged, but even insignia of rank and arm or service. In practice this program proved a failure. Field commanders not only ordered the retention of rank insignia, but even originated cloth badges of various types. These were inscribed with the bearer's name, his unit, sometimes the name of his commander, and even a symbol for his division.

After the Japs had been at war with the British Empire and the U. S. for two years, the Japanese High Command finally decided to give official recognition to the demand for clear-cut identification of rank and of command. It was announced in October 1943 that a new type of insignia would go into effect on 1 January 1944.

Most interesting is the institution of badges for officers in command of units ranging from companies up through general officer commands (or a field officer holding a command calling for a general). These badges are made of

aluminum, with silver leaves for company and field grade commanders, and gold leaves for officers holding general officer's commands. This is comparable to the U. S. practice of painting rank insignia on the helmet. It should aid snipers and other personnel in singling out Japanese unit commanders.

To make rank more obvious, insignia of rank is also to be worn on the cuffs of officer's coats and overcoats. Insignia of arm or service, hitherto worn only in action by military police and medical units, will take the form of a narrow colored strip beneath the usual collar insignia of rank. It is believed that this collar insignia will be somewhat larger than the familiar patches now generally encountered.

Since shoulder rank insignia of a type in use for some decades still are being encountered in all the Pacific and Asiatic theaters, there is little likelihood of the new insignia replacing the old overnight. In view of current Japanese supply headaches, a gradual replacement of present insignia is more likely.

DON'T REMOVE INSIGNIA

When this new insignia appears, souvenir hunters must be warned again against ripping insignia of rank from enemy uniforms—especially from officer's uniforms. Insignia collections and souvenirs for home are of no value when vital combat intelligence is lost. Combat troops must learn to leave all insignia on the uniforms of captured personnel so that intelligence officers can select, without difficulty, good prospects for interrogation. If these intelligence officers can get hold of the right Japs at the right time, they can learn urgently needed facts about the enemy's strength, his troop dispositions, his weapons, and the combat practice of his command. Information of this type may enable a U. S. commander to turn a possibly costly operation into a highly successful campaign.

British Raid in Burma

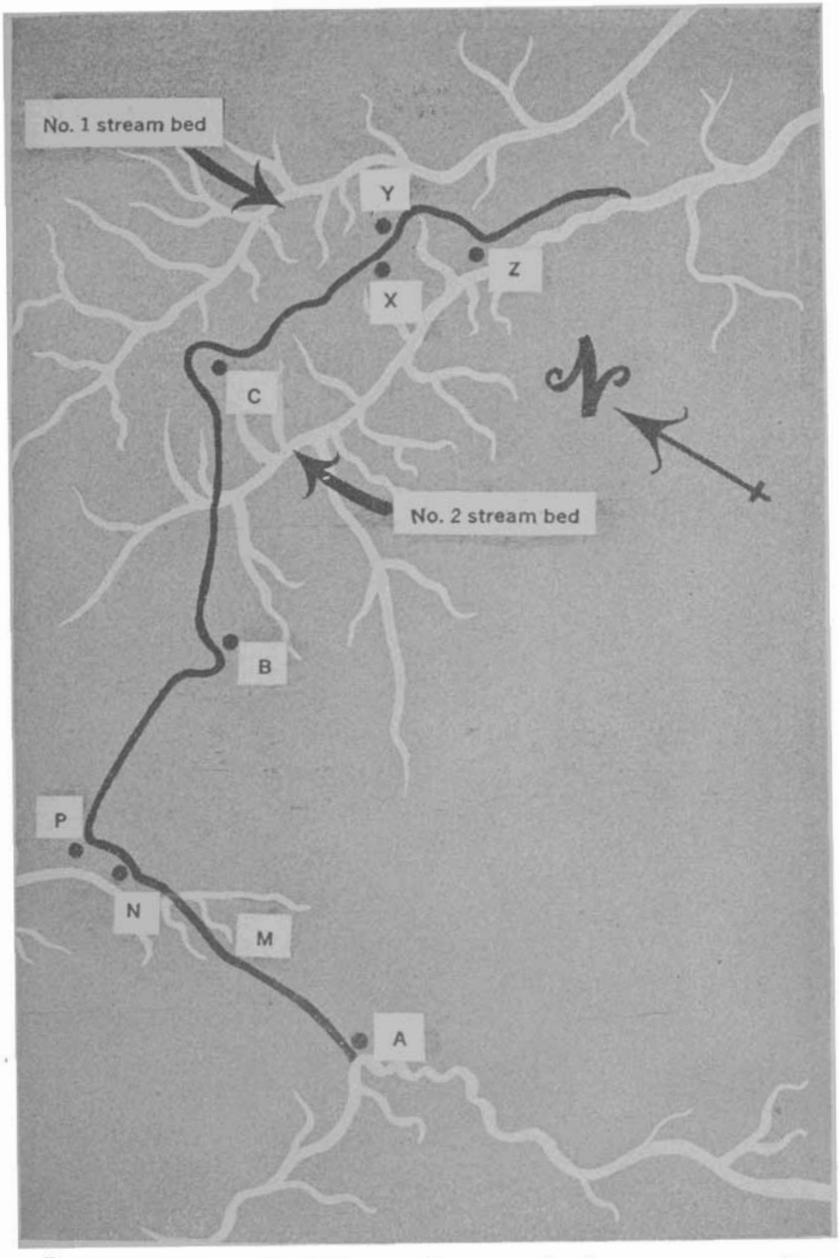
Careful Planning and Rehearsal Pay Off

In the course of operations against the Japanese in Burma, several small British patrols reported considerable Jap activity in the vicinity of points X, Y, and Z (see map on page 75) and the possible use of dry stream beds 1 and 2 as supply routes toward point C, a deserted native village. The patrols also reported that the Japs were constructing positions at points X and Z.

As a result, it was decided to send a strong patrol consisting of an company into the area, to gain further information about the enemy supply routes and to kill as many Japs as possible.

The area between the No. 1 and No. 2 stream beds is covered with dense jungle vegetation. In places the ground rises 3,000 feet from the stream beds to a hill crest, along which there is a foot path.

The company was to start from the vicinity of point A. Each man would carry enough rations for eight days. The march to point C was to be carried out silently and secretly, and by day. Since any movement of a large body would at-



***Route of a strong British patrol** reconnoitering enemy supply routes in Burma.*

tract the attention of native spies, it was decided to move the company in parties of six to four men. These parties were dispatched at irregular intervals over a period of about four hours. It was hoped that, with the company moving in this manner, anyone seeing one or more of the parties would suppose that they were merely small patrols.

The company left point A early in the morning. Each of the small parties was well briefed before leaving. The destination for the first day was point B. The route ran through fairly open terrain and across several hill features until it entered the dry watercourse at point M. From this point it followed the dry watercourse to point N, where it joined the mule track leading to point P, and thence to point B. No mules or other transport were used.

The second day's march, from point B to point C, was a hard one—up steep hills most of the way—and took about 9 hours to complete. It was made in the same manner as the previous day's march had been—by infiltration of small parties. By 1600 the entire company had assembled at point C. This was to be the company base during the execution of the mission.

The actual camp site was about half a mile west of the village. This site was in dense jungle and behind a hill. Sentries were posted around the camp to observe and report any enemy movement into the area.

These orders were issued:

1. No movement by anyone by day or night outside the camp area.
2. Talking during the day to be limited to verbal orders. No talking at night.

3. One hour before sunset, and thereafter, lights and smoking to be forbidden.

4. Pits to be dug for all fires, and roofed over to disperse the smoke.

No cooking pots or pans were carried. Each man cooked his meals in his mess tin.

On the morning of the third day, three reconnaissance patrols were sent out.

One patrol, consisting of an officer and an enlisted man, was ordered to find out whether there were any Japs along the hill north of stream bed No. 1. The patrol returned early in the day, and reported that the hillside was very steep and covered with dense vegetation, and that no Japs had been seen in the area.

The second patrol, consisting of an officer and an enlisted man, went down stream bed No. 2. They were ordered to go as far as point Z, to reconnoiter a Jap position reported to be there. Returning the same evening, the patrol reported no Japs along stream bed No. 2. An unoccupied Jap position, consisting of well constructed trenches and foxholes, had been found at point Z.

A third patrol, consisting of two officers and three enlisted men, was ordered to reconnoiter toward point X and was given the following missions:

1. Find out whether it would be possible to make a two-platoon frontal attack on the Jap position at point X.

2. Describe the Jap positions at point X. Are they surrounded by wire or booby traps?

The instructions given to these patrols emphasized that they were reconnaissance patrols intended for reconnaissance only,

and that they should be extremely careful to avoid getting involved with the enemy.

Each man was equipped with a stabbing knife, a rifle, and 50 rounds of ammunition. Faces and hands were painted jungle green. To ensure complete camouflage, leaves and branches were sewn to the clothes and tied to the rifles. Each man took his pay book, haversack, and a native hat with him. Some native food was placed in each haversack. The idea was that if it became necessary to fight a small Jap patrol or a Jap sentry, the British would kill the Japs, leave the native equipment, and move out of the area immediately. If other Japs were to come across the native equipment, they probably would not suspect the presence of British forces in the area.

The third patrol moved along the foot path to within a few hundred yards of the Jap positions at point X. The three enlisted men were stationed in a well concealed position, and the officers then moved south of point X to an ideal observation post, from which they could watch Jap activity at a distance of only 100 yards. One officer then went back for the three men, and all five hid themselves at the observation post.

Suddenly they noticed a patrol of about 12 Japs approaching in their direction, but moving along a course which would pass the observation post about 100 yards further down the hillside. Two Japs out on the flank were coming directly toward them. When the Japs got within several yards, an enlisted man became excited and, rising to his knees, quickly shot one of the Japs at point-blank range. At once the officers shot the other Jap. They then fired another round apiece, aiming at the heads, to make sure that both Japs were dead. Leaving the native equipment, the patrol left the observation post and went around to the other side of the hill. The officers returned to point C to report; the enlisted men went back to the

observation post to resume observation after the Japs had removed their dead.

On the fourth day, orders were issued for an attack on the Jap positions, and the day was devoted to preparatory maneuvers.

On the fifth morning, the entire company moved out to launch the attack. (The leaf and branch camouflage on uniforms and rifles, as well as the green paint on faces and hands, was repeated. In addition, each man wore a green wool stocking cap and sneakers.) Two platoons moved in a single file down the trail to within 600 yards of the Jap positions. Deploying in the jungle, they adopted a two-platoon front at a distance of 400 yards. They remained in this position during the night, which passed uneventfully. The third platoon moved down the No. 1 stream bed and spent the night at point Y.

Contact was made with the three enlisted men who were still at their observation post and who now rejoined their platoons. One of these men led a sergeant forward to the Jap sentry in front of point X. The sentry was quietly killed with a knife 10 minutes before H-hour, which was to be 0630.

At 0630 the 2-inch mortars started firing, and the two platoons advanced. Enemy resistance was overcome, except for several machine guns firing from bunkers and occasional firing from Japanese 4-inch mortars. By 0915 the third platoon had reached a position 200 yards east of point X. They had cut the Jap telephone wire, and had booby-trapped the ends of the cut wire by attaching them to the partly pulled pins of hand grenades concealed in the grass.

A party of Jap linesmen moved out to restore communications. It was wiped out by the third platoon. The enemy was expected to counterattack, and did. A Jap platoon moved up—

12 men abreast, almost shoulder to shoulder, and 12 more men close behind them. Fire was opened on these Japs at a range of 10 yards, and most of them were killed or wounded. Also, 35 grenades were thrown at the enemy.

Another Jap platoon in the same formation was coming up behind the first platoon, now almost entirely wiped out. Not having seen what had happened to the first platoon, the second platoon continued to advance. Unwillingly, however. Their platoon commander was behind them, shouting commands in Japanese and Urdu, and striking them on the back with his sword. Suddenly the commander was shot by a British sniper who had been posted in a tree and instructed to kill enemy officers. Deprived of their leader, the Japs ran to take cover in the jungle. Several of them were killed as they ran.

It had been arranged that operations would cease at 1400, with everyone withdrawing to camp at point C. Therefore, all the platoons returned to camp, leaving the bunkers still in enemy hands, but planting a generous number of booby traps before departing.

The two platoons which had made the frontal attack suffered 16 casualties—three killed and 13 wounded. The third platoon, which had done most of the fighting, returned with nine men missing. The next day seven of these men returned to the camp. They had spent the night near the enemy bunkers, watching the Japs taking away their dead and wounded.

The Jap casualties were estimated at between 70 and 80. The percentage of Japs killed was high.

Ordnance teams are saving lives by master-minding the enemy's weapons. Careless treatment of captured materiel may deprive the U. S. of vital information.

ORDNANCE INTELLIGENCE TEAMS UNCOVER TECHNICAL SECRETS

"One of the biggest difficulties that Ordnance Intelligence Teams face is the continued refusal of combat units to recognize the importance of technical information gained from a study of enemy ordnance." The man who said this knew what he was talking about. He is a lieutenant in charge of an Ordnance Technical Intelligence Team now operating in the Pacific.

This officer's report emphasized an unfortunate condition which has existed for a long time. Combat troops, preoccupied with fighting or souvenir hunting, are unaware of the part captured enemy equipment plays in the progressive development of our own weapons, and of its usefulness in enabling intelligence officers to predict the probable widespread use of new weapons by enemy troops.

This difficult master-minding is a job of the Army Service Forces Enemy Equipment Intelligence Service Teams. These teams include trained personnel from each technical service.

Specifically, where weapons are concerned, it is a job for Ordnance Technical Intelligence, which must keep the army up to date in this highly technical aspect of warfare.

Early in the war, the U. S. Army saw the necessity for immediate first-hand technical observation, and in December 1942 the first Ordnance Intelligence Team, a handful of specially-trained officers and enlisted men, was dispatched to a combat zone. Its mission was to procure enemy weapons and ship them to the United States to be used in a continuous study of the latest developments and trends in the enemy armament industry and to rapidly develop counter weapons. Today teams of trained technical observers work in every theater of operations.

Many times these intelligence teams have landed with the assault echelon of U. S. invasion forces, often going in with the first or second wave. Their work begins immediately, inasmuch as they must be on hand to gather enemy weapons as they are captured and before the materiel has been needlessly damaged or carted away by souvenir hunters. As soon as possible, a field headquarters is established, and the investigation of captured weapons begins.

Because they are schooled in the intracacies of enemy weapons, the personnel of Ordnance Intelligence Teams often have turned captured weapons against the enemy. Such was the case recently in France when Ordnance Intelligence men were able to "cannibalize" enough from captured German artillery pieces to equip U. S. artillerymen with 50 German 105-mm pieces.

American soldiers on the Western Front firing French shells from a German mortar. This kind of improvisation with captured weapons is made possible by the field research work of Ordnance Technical Intelligence men.

Ordnance Technical Intelligence men reconditioning captured German 105-mm howitzers. Over 25,000 German shells were fired back at the enemy with captured guns of this type during initial operations against the Siegfried Line.

American artillerymen fire a captured Pak 43 at the retreating German army in the area around Metz, France. Ordnance Intelligence Teams often are able to repair weapons damaged by a retreating enemy and turn the guns against the former owners.

The first concern of the intelligence teams is to get possession of those captured enemy weapons that are of no immediate value to the combat units. These weapons are inspected, a preliminary report is written, and the guns are then shipped to a rear-area proving ground operated by the theater ordnance officer. Here the guns, and other captured equipment, are put through field tests to determine any new tactical information that will be of immediate value to the troops operating in that theater. If a gun under test shows no new characteristics, it may be sent to a theater training area where replacement troops use it in pre-combat instruction. Should it be a weapon worth further intelligence analysis, it is shipped immediately to the U. S.

Contrary to a recent G. I. rumor that captured weapons are

sold at War Bond rallies, test-worthy captured guns, tanks, ammunition, and vehicles procured by Ordnance Intelligence Teams are sent from every theater to the Ordnance Research and Development Center at Aberdeen, Maryland. Here they are started on a routine of tactical and technical analysis designed to discover every item of information which may be of value to our own troops and to our munitions program. The general performance of the equipment is studied, and a report of the tests is issued to all interested agencies. Often the equipment is broken down, and component parts are shipped to various laboratories, arsenals, and industries throughout the country, where they may be studied and tested by highly trained metallurgists, engineers, and other specialists. The results of these fine-tooth inspections are submitted to the development engineers concerned with the design of similar equipment for the U. S. Army.

Such analysis of enemy equipment has disclosed a wealth of information of value in the development of U. S. weapons—a fact which perhaps is not generally known. For years the enemy prepared for war, and consequently was well advanced in the development of new weapons and the improvement of the design and manufacturing technique of old equipment.

In only a very few instances has the enemy introduced a new type of weapon unknown to American designers. However, there have been occasions when the discovery of a hitherto unused manufacturing technique in some piece of German equipment has proved the reliability of a similar, but untested, American idea. Such a circumstance often has enabled U. S. engineers to make short-cuts between the designing and production of a new or improved weapon.

In addition to disclosing the plausibility of new manufacturing techniques, the analysis of captured equipment often has revealed new and improved design in the minor compo-

nents of a weapon. U. S. engineers are quick to adopt such changes in improving our own equipment. More than 50 design features in U. S. ordnance matériel have been adapted from similar German and Japanese equipment captured by U. S. soldiers and turned in to technical intelligence men.

Because the enemy continually is developing new equipment designs and modifications to counter our weapons and to compensate for production lost in bombed-out industry, it becomes increasingly important for technical intelligence men in the field to procure samples of newly-captured equipment. The gun which, to an infantryman, appears to be a standard job the Japs or Jerries have been using all along may actually be an old design produced under new specifications, and perhaps with an important modification.

Yet a standard answer encountered by Ordnance Intelligence officers, when requesting that a certain item of enemy ordnance be turned over to them by combat troops, is: "What does the Ordnance Department want with that? It's listed in our own Enemy Weapons Handbook!"

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[1] The numerals in bold-face type denote the *Bulletin* number; the numerals which follow denote page numbers.

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